MARCH 2024 VOLUME 21 ISSUE 3

THE LOGGER'S BARK

Radio Club of Tacoma

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W7DK 2024 Officers and Committee Leaders

Executive Committee:

President:	Mike Mikuchonis W7XTZ
Vice President:	Adam Barbera W2NCC
Secretary:	Gary McAdams WG7X
Treasurer:	Steve Dightman AF7YD

Board of directors:

Board:	Mike Drorbaugh W7MKE
Board:	Paul Matney W7PFU
Board:	Doug Schafer AB7DG
Board:	Red Cranefield WB7EC
Board:	Phil Pia K7PIA

Key Committee Chairpersons:

Membership:	George K7GRS/Mike W7XH
Salmon Run:	George K7GRS/Mike W7XH
Infotech/IT:	Randy WB4SPB
HF Operations:	Phil K7PIA
Facilities:	Adam W2NCC
Property Mgmt.	Red WB7EC
Museum:	Dan KD7SV
Planning:	Manny AD7MA
POTA:	BJ WA7WJR
General Meeting:	Dave W7UUU
Bark layout & Editor:	Dave W7UUU
Assistant/Copy Editor:	Anne N7ANN

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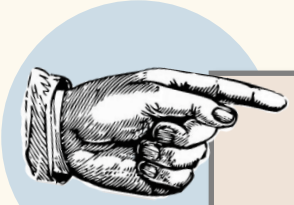
But don't stop there! Each issue is 50 or more pages of fun and cool stuff to explore! Scroll on!



Have a submission for our next issue?

loggersbark@gmail.com

PRESIDENT'S CORNER

Monthly ruminations from our President

Mike Mikuchonis
W7XTZ

RAMBLINGS OF A MAD MAN! *The time is now!*

Woulda, shoulda, coulda!!! Remember just a couple years ago when propagation was not very good… 10- & 12-meter bands were almost always closed or usable only locally or regionally but not for DX. 15 through 40 was so noisy at times that the phrase "say again, again" was frequently heard. On 75 and 80m local QSOs were heard but it might have been the guys that filled their QSOs with obscenities or talked about very personal medical issues (yuck! We never do that, do we?). The minority for sure but boy they're out there!

Many operators migrated to digital when conditions were too bad for voice communications. While digital modes of communication have been around in radio for 125 years (I think CW as the first or close to it), it seems as if newer ones have appeared. Just go upstairs and join the "peanut gallery" in the HF operating room. While there may be Voice SSB or CW Morse QSOs happening, you hear some funny computer noises - what's that happening in the corner with the computer screen showing narrow to wide lines filling the viewing area? Most likely it's someone sending or receiving via FT modes using the WSJT-X software. The radio can "hear" signals too low for the human ear and still decode them perfectly. Imagine making a digital contact with a Pacific Islander, Asia, Africa or Europe while the bands are closed for voice but the digital magic of FT8 still pulls through, over the noise or poor band conditions. It's truly amazing to see if you've never tried it. Just ask someone for help on any Saturday Open House in the HF room to get you on the air and give it a try! Now to the "woulda, shoulda, coulda"! I've said many times "oh, there's a club group doing POTA" (Parks on the Air) but I'm too busy or the weather is crappy. Or thinking sometime "it sure would be fun to operate portable from XXX park out in the Peninsula". I'm thinking the time is now to do at least some of these things so that just a few years from now when I'm possibly then unable, I won't be saying that I sure wish I had done some more of these things to enjoy ham radio!

"Woulda, shoulda, coulda", I don't want that as my epitaph! The time to do it is ***NOW!***

Thanks all,

Mike W7XTZ, President, Radio Club of Tacoma

FROM THE DESK OF THE VP

Adam Barbera
W2NCC

Insights from our Vice President

HELLO AGAIN RCT MEMBERS! Hoping all are doing well. For my March VP column, let's talk a little about our revenue streams. Today the club has 3 main sources of income: membership dues, equipment donations sales, and the Salmon Run fundraiser. As you can see the club has some diversity in revenue streams. However, it's important to note that the club's annual core expenses are greater than any single income source.

Even membership dues collected each year do not cover the core expenses. These expenses consist of taxes, electricity, water, internet, website hosting, etc. Having multiple income streams is important for a non-profit organization like the Radio Club of Tacoma. Diversification helps mitigate risk by reducing the dependence on a single source of funding that may fluctuate in times of uncertainty.

It is important for nonprofit organizations to continuously evaluate current sources of income and at the same time, research other new income opportunities. This might require being able to leverage new technologies and trends to access these new income sources.

Last year the Board was made aware of an organization called Benevity.com. This is a Third-Party Administrator TPA (third party administrator) that manages charitable donations to nonprofits. Many Fortune 500 companies like Microsoft use Benevity to manage donations. Employees can then volunteer their time to help their favorite nonprofit organization. Benevity makes it easy for employees to volunteer and to help their communities by automating the process of tracking volunteer hours.

Another source of income the club is exploring is grants. This is new to the Radio Club of Tacoma. It's something the club has not done before, and really not traditionally a part of our culture. Grants can be a valuable resource for nonprofit organizations providing funding without the burden of repayment. The Radio Club can use these funds to support programs and cover operational costs. Many corporations offer grants to nonprofits and these can be a significant source of funding. Grant applications can be competitive and time-consuming to complete, often with a lot of effort needed to gather all the supporting materials. Also, there is no guarantee that a submitted grant proposal will be approved. Despite all the hardships with submitting grant proposals, I feel it's worth the effort because securing funding can significantly benefit the club.

Last year I formed a grant writing committee. We were able to complete and submit two grant proposals, one last year and one this year.

In a future article I will share more about Benevity and the grant writing committee.

73 until next month,

Adam Barbera W2NCC

Vice President

SECRETARY'S REPORT

W7DK Secretary—Gary WG7X

REGARDING CLUB COMMUNICATIONS

There are various levels of communication in the Radio Club of Tacoma. This is true of any organization. Here at the Radio Club of Tacoma, we have our usual informal communications where we meet at the clubhouse and talk about whatever we want. This month, we will discuss written (email) communications.

We have a few methods of communicating via email. There is one method used by the club to get the word out for events that will be happening soon, or events that are time sensitive. This method is called an "email blast". Our webmaster Randy WB7SPB sends these messages out to the entire membership when necessary to remind us of upcoming events at the radio club. Things like club meetings, contests or POTA events or any other time sensitive events.

The nets and email blasts are what we might call public or general communication methods.
Then there are the other email communications used in the club for coordination or discussion of other things that are used by the club officers and committee chairs. These email communications are generally only used for communication between the staff. There is nothing secret about these communications, we just use them to cut down on the clutter and drift that would occur if all the club members were included.

Over the years, the club secretary would keep two main address books: one for BOD members and the other for committee members. Over time these lists kept getting bigger and bigger as folks were added to them. Once folks got on the list, they apparently were never removed.

So, along comes a new secretary (me) and the lists were sent to me for my use. I looked at them and saw a lot of addresses of folks who were not club officers or committee chairs.

So, in the interest of keeping it simple, I decided to trim the BOD and committee lists down to current officers and chairpersons. This upset a couple of folks who had been on the lists for years. Their issue was brought to the attention of the president. No problem though: because all the various monthly reports are available in the club's newsletter.

If you're reading this, you already know that the Loggers Bark is the method of choice!

If anyone reading this needs to contact any officer at the club just use their callsign@w7dk and that will direct your inquiry directly to that person.

73 Gary, WG7X
-secretary, Radio Club of Tacoma

WHAT A PROJECT this has been, bringing the Logger's Bark newsletter back to being a "front of the month" instead of an end-of-month affair. The Covid years were clearly the cause of this shift… we're quite lucky the Bark even *managed to survive* those years intact. *Huge thanks* to the prior long-time Bark Editor Gary WG7X for keeping the Bark alive then in any format.

But the resetting to the beginning of the month, combined with the rather expansive new format, have really made this quite the project. I actually spend *hours* each day working on this publication—but I do enjoy it a great deal. Otherwise, I'd simply not do it. I recently retired and publishing the Bark has become something of a side-hobby for me.

One thing that would *really help me* would indeed be the help of others—*contributors of all kinds* whether it just be fillers and blurbs, photos from club events, or full-on articles of any kind.

I'm indebted to my regular contributors: those officers who (in some cases) never intended to submit columns monthly, who have come through so admirably with great content! And to members like Rich KR7W who no longer even lives in this area, who provides some really fun and entertaining contributions.

And this month, we again have a Guest Editorial which is great! It gives the members a place to voice your views and concerns. Please—*use that platform* to bring YOUR issues and concerns to the club. How can they ever be addressed if you don't let the membership and officers know what they are?

I have committed to making this a great publication for our club—not just a newsletter, but a W7DK magazine that can be viewed across the internet.

I've been a member here for many years—I joined at the August meeting in 1975, as far as I can tell from the club records. I had only received my Novice license in mid-March (after passing my tests in December 1974), with my very first QSOs being with Nick K7MO (then WA7IVO) and his father, Joe, WA7RWK. Doc Spike W7OS was a personal friend, and dined with my family in the summer of '75.

I've also embarked on my 2023 project, "W7DK Living Histories" series of videos…. all in an effort to keep our histories alive. Be sure to click the image on that page of the Bark to view this month's video.

Let me know how **YOU** can contribute to these important aspects of our club.

For now, 73 from Dave, W7UUU, *-editor*

GUEST EDITORIAL

The place to express yourself on a Ham topic

HELLO AGAIN FOLKS— I did not expect to make another guest visit to the Loggers Bark Guest Editorial page but something has come up that we as members *really* need to address.

One of our long-time members is now confined to a wheelchair. Most of you should be aware of this by now. So I want to know how are we going to make his life a little easier by welcoming him to the clubhouse on Saturdays like in better times?
We have to make our clubhouse accessible for members using wheelchairs, walkers, or mobility machines. We have an inadequate wheelchair ramp at the kitchen door, that's not wide enough, doesn't have the right slope, and it doesn't provide a safe place to turn at the top of the ramp without a big risk of falling down the stairs.

How about access to the "Mighty DK"? The primary station is upstairs with no way to access it if you can't climb stairs. The Lou room was offered as a solution but you all know how it is on a busy Saturday there's no room to play radio in that small room with everyone visiting. Members who can't climb stairs can't use all the new and cool radios in the HF room or the museum.

I also submitted info on an elevator at the time that had a price tag of $18K. But the idea was shot down. No one would give up space for an elevator even though our membership is getting older. How nice it would be on said old geezers to have an easier way to get upstairs by using an elevator!

Again nothing was done, and now we are backed into a corner folks. No one in their right mind would try a wheelchair or power chair up the incline of the ramp we have now. And once in the clubhouse are the doors to the bathrooms even wide enough for a wheelchair to pass? I don't think so! I remember painting the door in the men's bathroom and I don't think it's over 32 inches. That's not enough for a wheel chair. And there's not enough room in the bathroom for a wheelchair anyway.

Is this a good time to fix the soft squishy floor in that bathroom as well? Might be a great time to convert back to one large ADA accessible unisex bathroom and use the women's bathroom space for storage and put the passageway as part of the space needed for a handicap person which is a circle of five feet across in front of the toilet. Or just make one really big bathroom. We don't need separate bathrooms! We just need one BIG ADA compliant one and then everyone can use it.

Let the planning folks, led by Manny and W7DK board members, know your concerns. Thank you Dave the Editor for allowing me to get this in after the deadline of the 15th. Folks the ball is in our court to do the right thing. Now enjoy the rest of the Bark.

73,
Bob Heselberg K7MXE member 461

THE RCT MAILBAG

We'd love to hear from you!

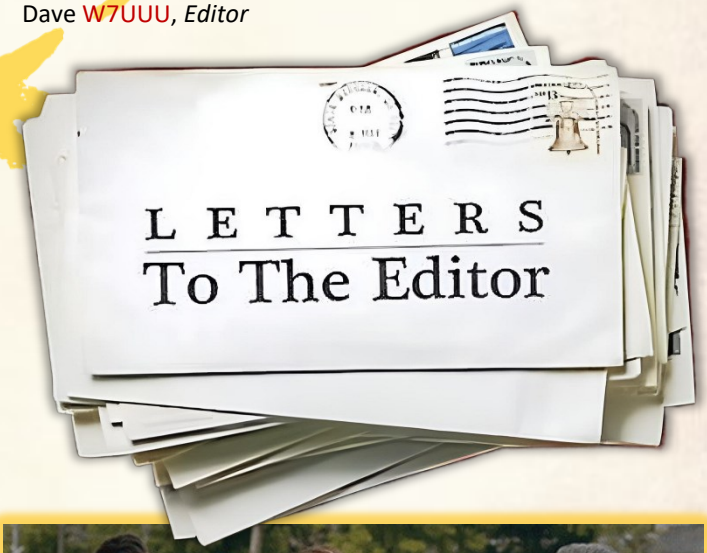
Keaton Surrat W7KJA in Missoula writes, *via* Ricky, KR7W, "Great article in the bark, Ricky! [*The Gotham Vertical Antenna*, February, 2024 Bark, p.66] In fact, that entire newsletter is so impressive, I am considering paying the dues just to receive the newsletter"

Dear Mr. Surrat: *Thanks so much for the kind words! Glad you like the new publication -editor*

Just email your letters and comments to LoggersBark@Gmail.com and you will see your letter on this page in a future edition.

Remember: **Editorial deadline for most materials is the 15th of every month!**

Thanks for reading!
Dave W7UUU, *Editor*



Click on image to download the February Bark issue
Article being referenced begins on Page 66

HAM RADIO WORLD NEWS

IMPORTANT

BILL INTRODUCED IN SENATE: The Amateur Radio Emergency Preparedness Act

WASHINGTON – U.S. Senators Roger Wicker, R-Miss., and Richard Blumenthal, D-Conn., introduced legislation to give amateur radio operators the right to install their antennas and serve their community. Homeowner association rules prevent amateur radio operators from installing outdoor antennas on residential properties even though this communication method has proven to be essential in emergencies and natural disasters, such as hurricanes in states like Mississippi and Connecticut.

"Because communication during natural disasters is often hindered, we should be making every attempt to give folks more options. Reliable access can make the difference between life and death in an emergency. Our legislation removes roadblocks for amateur radio operators looking to help their friends, families, and neighbors," **Senator Wicker said.**

"Our measure will help clarify the rules so ham radio enthusiasts can successfully continue their communications. In the face of emergency or crisis, they help provide vital, life-saving information that allow listeners to properly and safely respond, but prohibitive home association rules and confusing approval processes for installing antennas have been an unnecessary impediment," **Senator Blumenthal said.** "The Amateur Radio Emergency Preparedness Act resolves these bottlenecks and ensures that radio operators can function successfully."

Background:

The Amateur Radio Emergency Preparedness Act of 2024 would require homeowner associations to accommodate the needs of amateur radio operators by limiting the scenarios in which they can ban, prevent, or require the approval of the installation or use of amateur radio antennas. Homeowner associations have often prevented installation and use through private lands restrictions, potentially hindering access to emergency communications.

Among other provisions, this legislation would:

- **Prohibit homeowner association rules that would prevent or ban amateur radio antennas;**
- **Clarify the approval process for installing amateur radio antennas;**
- **Give amateur radio operators a private right of action.**

The Amateur Radio Emergency Preparedness Act of 2024 has been endorsed by the ARRL

FULL TEXT OF THIS BILL CAN BE FOUND HERE

HAM RADIO WORLD NEWS

Amateur radio events from around the world

WEB

REGISTRATION IS NOW OPEN

for Maritime Radio Day 2024, which takes place annually on 14 and 15 April.

The event is held to commemorate the almost 100 years of wireless telegraphy service for seafarers which ended with the closure in the UK of Portishead Radio on 30 April 2000. Commencing at 1200UTC on the 14 April 2024, and finishing at 2300UTC on the 15 April 2024, this event is a great opportunity to have a QSO with ex-marine radio officers and coast station professionals, who exchange details of their previous ships and coast stations.

The mode of operation is CW and all of the HF bands are used, including the WARC bands. A certificate of participation will be issued to everyone who submits results.

Amateur license holders are invited to register to take part as Friends of Maritime Radio Day.

Shortwave listeners may also submit logs.

For more information and to register click here.

Further reading:

Radio Society of Great Britain – Main Site

STATISTICAL STUDY OF HAM RADIO IN BRAZIL

Updated with data from 2022

prepared by **Ricardo Benedito PY2QB February 2024**

A translation of the **LABRE** post reads:

Since 2020, in its first edition, we have published this excellent and unprecedented study that helps to shed light on the Brazilian reality with regard to amateur radio.

Like its predecessors, this study is based on the official data made available by ANATEL on the Brazilian Open Data Portal and on its own sites. To share the study, these various data were collected, filtered, crossed and structured by Ricardo, who has experience in the area.

Among the conclusions, the most obvious is that the number of radio amateurs has increased in Brazil since last year. Almost 1000 new colleagues today are modulating in our tracks, making an order growth of 2.2% and breaking the mark of 40,000 radio amateurs in July 2022.

The state with the highest absolute number of radio amateurs remains São Paulo, with more than 10,000. The state with the highest density of radio amateurs also remained the same: Paraiba, which has more than 45 radio amateurs per 100,000 inhabitants. In relation to cities, São Paulo leads with 2430 colleagues from São Paulo, followed by Rio de Janeiro with (1521) and Fortaleza (1447).

Heard some ham radio WORLD news? Send it in!

ARRL NEWS & VIEWS

What is the League up to this month?

W1AW

ARRL WELCOMES

New Northwestern Vice-Director

What follows is the introductory email from Michael Sterba, KG7HQ to membership.

Did you know that the ARRL Northwestern Division has approximately 12,000 members?

Allow me to introduce myself, I am Michael Sterba, KG7HQ, and have the honor of being selected to represent each as your division Vice Director.

As our division leaders transition into new roles, please join me in recognizing both Mike W7VO and Mark KB7HDX for their contributions as division Director and Vice Director, each demonstrated unwavering leadership with focus and skill representing our community during a difficult multiyear timeline. It's their personal commitment coupled with professional attention that guided us in adjusting to a reality many could not have imagined. For this, many thanks and well wishes in your new roles.

I have been an active radio enthusiast since the late 1960's starting out as a short-wave listener (SWL) using an 83 YU 726 Knight Allied receiver and a SAVA Automatic VW155. Since then, I have expanded my horizons into the many different facets of amateur radio and radio communications hobby.

It was in those early days of listening in which my future was being shaped. Beyond the commercial SWL broadcasts of yesteryear, I was fixated on the conversations of the amateur radio operators like yourselves, who spent endless hours honing their technical skills to facilitate the art of two-way communication. As they shared their trials and tribulations, I sat soaking in their experiences, gaining the desire for more. Little did I understand that these early mentors from afar would shape the success of my personal and professional endeavors. To those, I owe a debt of gratitude for the gifts they unknowing gave. It is this sense of debt that drives my personal motivations to accept this opportunity of office.

Within the amateur radio community, I'm stepping in from the roles and responsibilities of Assistant Director, Technical Specialist, and a Volunteer Examiner. I currently enjoy operating AM, CW, FM, SSB, and digital mode technologies from

ARRL NEWS & VIEWS

What is the League up to this month?

W1AW

33cm through the 80m bands. Through the years I have also contributed to the community through the appointed roles of AEC, OES, and in leadership for multiple clubs and organizations in our division.

I opened with a reference to our ~12,000 division members and am circling back to why I'm here. Each of your voices is important. Singularly, we have learned that the volume of each can fade quickly, but together, we can create a chorus that influences the direction of amateur radio. I'm a servient leader and in this, I tend to focus primarily on the growth and well-being of our members and the amateur radio communities in which we belong. My representational voice carries the chorus of all forward in which I'll do my best to communicate with balance and clarity of your contributions.

Professionally, I'm employed by the Boeing Company as a senior business analyst and formally held the roles of an employee development specialist, aircraft systems designer & integrator, and avionics technician. I proudly served in the US Navy and Navy Reserve, retiring after 25-plus years with a commissioned grade of Warrant Officer specializing in avionic technologies. In addition, I have held the positions of President and Treasurer of the Employee Community Fund of the Boeing company, directing and managing ~$35M of charitable giving on an employee elected rotational board.

I have earned a BA in Business Management with a focus on operational excellence (Cum Laude), FCC General Radio Telephone License with Radar Endorsement and am active as an amateur radio Extra Class as KG7HQ.

My hope is that this quick introduction finds each of you well and enjoying the enriching activity of amateur radio. My wish is that we have a chance to exchange history, inspirations and thoughts, so I can best represent going forward with your voice as part of the chorus. Thank you ahead and best of 73.

Sincerely,

Michael Sterba, KG7HQ
ARRL VD NW Div.

Radio Club of Tacoma
Board of Directors Meeting Minutes
02-07-2024

NOTE: Other than graphical considerations, meeting Minutes are published as submitted.

NOTE: The Minutes pages are intentionally not embellished so that they are easily printed without excessive ink or toner consumption.

Meeting called to order at 1902 PST

Officers and Directors Present

X	President	Mike Mikuchonis W7XTZ
X	Vice President	Adam Barbera W2NCC
X	Secretary	Gary McAdams WG7X
X	Treasurer	Steve Dightman AF7YD
X	Board	Mike Drorbaugh W7MKE
O	Board	Paul Matney W7PFU
X	Board	Doug Schafer AB7DG
X	Board	Red Cranefield WB7EC
X	Board	Phil Pia K7PIA

Quorum? Y

Approval of Minutes
Minutes approved as circulated? Yes.
Special board Budget meeting minutes approved as circulated: yes.

Silent Key or Illness?

Nick K7MO is out of the hospital, hopefully for the last time. He is continuing to recover and is doing well. He has his own electric wheelchair and is learning how to work with it now.

Tom Crelling (KE7SW) member # 1200 passed away in July of last year. I (Mike W7XH) reached out to his brother Bob, also a member of the club.

Secretary's Report (WG7X)

Gary was out of town for 10 days, and Steve AF7YD checked the mail and delivered action items to Mike W7XH for processing. Thanks, guys, for being Gary's backup. Received one check from ARRL for rebate of membership. One new membership application today.

(Continued on page 14)

(Continued from page 13)

Treasurer's Report (AF7YD)

Discussion of the report(s) ensued. Steve went through them in detail for the BOD.

2024 Budget Reports are attached to these minutes for everyone to read and appreciate.

Executive summary:

Revenue: 2019 was the best out of the 2017 – 2023 years income wise. 2020 & 2021 were the pandemic years and not so good, but we still did OK.

Expenses: Mostly the same distribution as the income. Programs and facilities also followed the same pattern with 2023 having more expenses mostly due to the renovations done to the clubhouse and the garage.

Total assets: 2017 through 2023 we have grown every year. At the year end of 2023 we had $***. We're in pretty good shape.

Steve then showed us the projected total budget requested for 2024 and going forward. HF and Tower are the biggest expenses requiring membership approval at $*** HF and $*** for tower.

Progress of Money Market Account? In progress.

Progress of getting financial data onto the RCT NAS? Also, in progress.

Committee / Reports

Membership (W7XH/K7GRS)

Mike reports current membership at 290. With at least one new member in the queue. A new member kit is in progress three folks working on that with Mike. Lapsed members will be getting a nice goodbye email.

Last Saturday Mike sent out 40 new members cards. Mike continues to follow up on the lapsed members. 51 folks will be added to the lapsed members. Mike supplied Secretary with a list broken down by age, location, class, and other types. A total list is attached to this report. Mike is doing follow up letters to 8 of the the lapsed members encouraging them to reconsider their renewals.

Current lapsed member distribution:

By AGE:

80's = 2, 70's = 8, 60's = 5, 50's = 6, 40's = 13, 30's =10, 20's = 7

By License class:

Extra = 16, Advanced = 1, General = 14, Technician = 20. Mixed types: senior, full, family & promotional.

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By Location:

One out of state: Idaho.

One in Auburn, Bainbridge Is., Belfair, Bonney Lake, Fife, McKenna, Port Orchard, Spanaway and Wilkinson.

Two in Buckley, Puyallup and University Place.

Three In Lakewood.

Four in Gig Harbor and Roy.

Twenty-two in Tacoma.

Mike met with Bob and Greta in Ocean shores over the weekend. They are both doing OK, with Bob slipping a bit into older age…

Library (AD7AV)

George Salisbury K7GRS reported the current librarian is not yet ready. Doug Oakman will return to full strength next month. Budget for library will be updated at future date because some unknown expenses might start coming in as the year progresses. Current budget request is $***.

Training (AD7AB)

No report

VE (AC7WW)

VE Report Camp Quest NW

Monday January 15, 2024, your VE Team was at an afternoon testing session at the Clubhouse. We graded 22 elements from twelve candidates of the Camp Quest NW in two sessions. Seven Candidates became Technicians. Six of the candidates were 17 years old or younger, of which only two passed the Technician Exam.

Thanks to the following VE's for their service and time.

Rich, KK7VH, Mike, W7XH, Sam, N9MII, Stephen, AD7AB and Phil, K7PIA.

The New Amateur Extra-Class Question Pool has been released and is effective July 1, 2024.

VE Report January 26th, 2024

Your VE Team traveled South to JBLM where we tested 11 candidates. Ten candidates joined the Amateur ranks as technicians.

(Continued on page 16)

(Continued from page 15)

We graded 21 exams. One candidate failed to obtain an initial license.

Thanks to the following for their time and service.

Mike, W7XH, Stephen, AD7AB

The next scheduled test session is February 13th, 2024. 1730 / 1900

The total candidates tested in 2023 for all license classes was 184. 54 took the Tech class, no numbers for General and Extra

Info Tech and Website (WB4SPB)

All systems nominal.

HF Operations (K7PIA)

Everything is operational, two contests coming up WPX RTTY and NAQP RTTY the 24th and ARRL DX SSB March 1th thru the 3rd contests coming up this month. Anyone wanting to work a contest just needs to let Phil know and he will set things up for you.

Bands have been in good shape, come in on any Saturday and operate!

Digital and weak signal work capabilities exist, don't forget 6m through 70 cm. Currently the multi band vertical is working with a jumper in place. Al, N7OMS has a new lightning protecter in hand and will be installing it soon. VHF/UHF station has beam antennas, so don't forget that we can do weak signal work on all bands 6 meters through 70 centimeters.

PJ's equipment continues to be installed and tested. The only failure so far was the Mercury IIIs. Mercury IIIs is currently enroute to manufacturer for repair. They are only going to charge us for parts and shipping. Mercury ATS tuner/ wattmeter is in place and working. Flex 6600 also in place and working. Flex 6400M is at Gary's place waiting for some accessories for testing…

HF committee budget will hopefully be approved at the next general meeting.

Al, N7OMS is in the process of setting up small batch training for all of our new equipment. The first class to be February 18th.

Tower (K7MO)

No report will be included in the grant request discussion.

Repeater Ops (N7OMS)

Al, Bob, and Sam are working on various problems with antennas and controllers. 440 was reported not to be working, Al tested it today and found that it was OK. Everything has been tested and found to be normal.

Al has gotten the lightning filter and will install it at first opportunity.

(Continued on page 17)

BOARD OF DIRECTORS

Minutes from last month's meeting

W7DK

(Continued from page 16)

Facilities Management (W2NCC)

Lock on garage door been replaced, Mike Isakson helped, smoke detectors need replacing, in progress. Alarm codes updated and software reporting of logons will be added. Paul K7OSS and Dave W7GLE were added to staffing for facilities.

Adam was looking for our safe. It is upstairs and empty. Will probably come down soon.

Funding sources for the club - Adam W2NCC. Third party funding is being investigated Adam is working on this. TPA (Third Party

Administration) funding is being investigated with possible funding grants from Microsoft. Dave W7GLE is also working on this from his position at Micro Soft. Discussion continued with President Mike asking Adam to provide us with more info for consideration.

Adam is progressing with this on his own and will report back to Steve AF7YD and President Mike. Grant project update – Adam's ARDC grant is in and submitted for tower work. Now we are just waiting for a response.

We (RCT) / Adam are also looking into grants from ARRL for the Camp Quest NW effort next year.

Property Management (WB7EC)

PMT will have an excess list of equipment for board action. A list is attached to this report. $*** dollars taken in from late sales. Red moved that PMT be authorized to sell the excess inventory. Mike W7MXE seconded: motion passed.

PJ's equipment is mostly staying in the HF committee areas for use by club members.

Red is looking for assistance with the PMT: Prez Mike is asking for assistance / responses to Red's request.

Museum (KD7SV)

Al, reports that the L4Bi is ready for use. The other one is still in progress… Kenwood VFO turned over to PMT to be added to the TS-520s to be sold.

Al also has a nice certificate from the Point Reyes Maritime Radio Historical radio society for their efforts in successfully decoding the numbers message sent by San Francisco Radio January 20th 2024.

Wednesday Workshop (WB4SPB)

TBD: check the website.

General Meeting (W7UUU)

See new business.

Planning Committee (AD7MA)

(Continued on page 18)

(Continued from page 17)

The Planning Committee is set to meet on January 29th at 7pm and will have several items on our agenda that we plan to present at the BOD meeting. Please add the Planning Committee on the agenda.

They met on 29 January. Manny AD7MA, PJ N7PH(sk) and Dave W7UUU were all present. Meeting again this month. New reporting to come.

Unfinished Business

None, except the upcoming budget approvals for the next General meeting.

New Business

Dave, W7UUU requests that we find a new General meetings coordinator. He wants to pass the baton.

RCT is also looking for Field Day chair and operators…

President Mike W7XTZ has received some questions about how RCT handles distribution of the preliminary meeting minutes for the BOD meeting. Process was discussed and general agreement that preliminary minutes should be distributed only to the BOD BOD meetings are open to the public either by attending in person or via Zoom. Board members were in general agreement on this point.

An Olympia (Olympia Amateur Radio Society) group has approached RCT with intent to take over the Crawford repeater. This is under discussion with our repeater committee. Will see a report later. DNR is also involved with this discussion between OARS, DNR and RCT.

General meeting February 14th, 2024, for budget approval. Make sure we get the word out for this!

Activity Reports, Discussion Topics, Announcements

Adjournment at: 2100 PST

END OF REPORT

Radio Club of Tacoma
Board of Directors Budget Meeting Minutes
01-31-2024

NOTE: Other than graphical considerations, meeting Minutes are published as submitted.

NOTE: The Minutes pages are intentionally not embellished so that they are easily printed without excessive ink or toner consumption.

Meeting called to order at **1802 PST**

Officers and Directors Present

X	President	Mike Mikuchonis W7XTZ
X	Vice President	Adam Barbera W2NCC
X	Secretary	Gary McAdams WG7X
X	Treasurer	Steve Dightman AF7YD
X	Board	Mike Drorbaugh W7MKE
X	Board	Paul Matney W7PFU
X	Board	Doug Schafer AB7DG
X	Board	Red Cranefield WB7EC
X	Board	Phil Pia K7PIA

Quorum? YES

Treasurers Report (AF7YD)
Steve wanted to do a deep analysis of the various budget proposals. His Power point presentation with that info went awol from his PC. But he rallied and gave us the following information…

He has a database of the last five years of expenses.

Take home expenses had a windfall during the pandemic with the overall trend down due to less expenses because of not needing presentations or expenses attributed to having the clubhouse open.

2020 Expenses were $852.

2018 Expenses were $***

Discussion started about having Steve's data available to present to the membership for their approval.

Core expenses for: 2022 were $*** For 2023 they were $***

Core is everything bills / utilities. Core expenses have remained static over the last five years.

2022 net income was after expenses was $*** Gross income for 2022 was $***

2023 P&L $*** Net was down to $*** at year end.

2023 saw $*** total operating expenses.

These numbers were used / discussed at the January 2024 BOD meeting.

(Continued on page 20)

SPECIAL BOARD OF DIRECTORS

Minutes from the Special BOD Meeting

W7DK

(Continued from page 19)

Camp Quest NW (Sam N9MII & Becky KG7FZH)

Sam & Becky were /are going to give us a budget for the upcoming Camp Qwest NW activities.

The last CQNW expected 10 campers, six showed. Camp was originally scheduled for November but was pushed back to January. This time two got licensed and another two are still working on their license's. Six counselors were there and five of them got their licenses.

Camp Quest NW is discussing doing this with RCT on a continuing basis. Also going into the spring and summer basis. Camp Quest NW is going to include a budget for future events that will be attached to this report. $*** was their budget for this edition of the Camp NW, but most of that was not used. Decisions were being made around an anticipated 15 campers. This event only had six campers. So the anticipated budget for the next even remains at $***.

Still looking towards the same November time originally scheduled around Veterans Day.

Discussion ensued… Still have enough lead time to finalize this process. They will work with Steve Morton on training.

Sam thanked RCT for doing this for their organization. Also made mention of the discord server now having a new channel dedicated to Radio Funk (That's German for Amateur radio). Sam has been working on this for over a decade.

Becky mentions that one of the new hams is now coming to the clubhouse to do stuff and his dad is also interested in doing ham radio.

Budgets Discussion continued:

$*** dollars in total general budgets received to date with HF being $*** and facilities debate continues about the budget with the tower budget included in the actual facilities budget.

The $*** budget are listed in the last board meetings.

Discussion ensued about the radios that we are keeping from the N7PH donation. The consensus is that we will keep all the new to us radios and the older radios and amps will go on the PMT list for sale. This will allow us to recover some of the outgoing expenses…

Discussion then continued with Adam explaining the facilities budget and the tower. He also explained that there is a grant proposal sent out to the ARDC group. Decided to hold off on the furnace repairs / upgrade because the clubhouse is not insulated.

Mike W7XTZ wants to proceed with the tower maintenance program because we have not followed through with this needed maintenance for years. Mike W7MKE proposed that the tower budget be approved pending funding on the tower, whether or not there is external funding (grants) or it is wrapped into the proposed tower budget.

Discussion then moved on to HF committee usage of the "new to us" equipment in the HF rooms. Generally speaking, the new equipment(s) will all be used in the HF stations. Discussion then moved on to possible arrangements for disposal / retaining of existing equipment.

(Continued on page 21)

SPECIAL BOARD OF DIRECTORS

Minutes from the Special BOD Meeting

(Continued from page 20)

Red, WB7EC mentioned that he needed an updated list of equipment to be disposed of at the next Mike & Key hamfest in March 2024. We will probably retain almost all the previous and new equipment(s). There are still more items to come from PJ's estate.

We will also be moving a lot of the older equipment to the PMT to help cover the new expenses. It is reasonable to expect that the amps at least will go for a fair amount of money.

Becky KG7FZH recommended that we update smoke alarms / smoke detectors. Adam is looking into this.

Mike W7MKE suggested that we approve / make a motion to approve the budgets as approved.

Discussion ensued as to the difference between yearly budgets versus extended, multiyear budgets. We also agreed that the process that we are going through is a good thing and we need to continue to do this going forward. We, the BOD are going to steward the clubs money in an appropriate manner. Discussion bogged down in semantics, but finally, the flowing two motions were made.

Mike W7MKE made a motion to approve the HF and Facilities budgets as presented.

Motion made to approve HF budget of $*** to send to the membership. Motion passed. 4 yes, 3 no

Motion made to approve Tower budget of $*** board to wait for motion: then amended to wait for ARDC grant before spending the money by June. Motion passed. Unanimously.

The meeting adjourned at 1930 PST.

Gary McAdams

Secretary, Radio Club of Tacoma

END OF REPORT

SEE ATTACHMENTS NEXT PAGE

NOTE: Other than graphical considerations, meeting Minutes are published as submitted.

NOTE: The Minutes pages are intentionally not embellished so that they are easily printed without excessive ink or toner consumption.

SPECIAL BOARD OF DIRECTORS

Minutes from the Special BOD Meeting

HARRINGTON AERIAL

P.O. Box 18201
Seattle, WA 98118

Estimate

Date	Estimate #
9/25/2023	3948

Name / Address
Radio Club of Tacoma Adam Barbera 1249 S Washington St Tacoma, WA 98405

Project
3948 Radio Club of Tacoma ZRC

Description	Qty	Cost	Total
Harrington to re-galvanize the Radio Club of the Tacoma W7DK 80' tower at 1249 S Washington St, Tacoma WA. Harrington to use 95% Zinc ZRC. Harrington provide all materials.		5,400.00	5,400.00T
Terms and Conditions of Estimate			0.00T
This proposal assumes unrestricted access to job site upon commencement of work. Purchaser shall obtain all necessary permits required and pay any local engineering costs. Harrington Aerial is not responsible for any local permits, taxes, inspectors, business license, contractors license, etc. Prices quoted are based on all fieldwork being performed during one continuous construction period. Quote is based on all work being accomplished by Harrington Aerial employees and does not include the use of any union labor or prevailing wages (unless otherwise stated). The cost of any special engineering, special insurance coverage, or performance bonds will be additional. Waiting time for inspection, materials or any other delays caused by others or additional work required outside the scope of this estimate will be billed per man-hour at Harrington Aerial's weekday hourly rate of ($125-$175/worker/hour.) These expenses shall be in addition to the prices proposed on this estimate. Harrington Aerial will report to customer any tower conditions or member that require repair or maintenance. If customer requests that those repairs or maintenance be implemented, that work is in addition to this estimate and will be billed as an additional job or change order. Invoicing terms are due upon completion unless otherwise stated and a 1.5% late fee will be assessed monthly upon all unpaid balances. ** This estimate expires in 30 days.			
NOTE: Other than graphical considerations, meeting Minutes are published as submitted.			
NOTE: The Minutes pages are intentionally not embellished so that they are easily printed without excessive ink or toner consumption.			

Phone #	E-mail
(206) 484-7070	info@HarringtonAerial.com

Subtotal	$5,400.00
Sales Tax (10.3%)	$556.20
Total	$5,956.20

SPECIAL BOARD OF DIRECTORS

Minutes from the Special BOD Meeting

RCT Program/Activity Action Plan
and Budget Proposal Form

Proposed Activity Action Plan

Proposer, or Program Chairman,

This process is intended to help you plan for your activities and resource needs, and to assist the RCT Board in assessing overall RCT planning and budget requirements. Its purpose is to provide a guide for you to formulate a plan of action for your program/activity this year. Define your program goals and action items for the coming year, then estimate your budget needs to accomplish them. It is helpful if you can prioritize your program goals and associated budget proposals.

This plan and proposal are for the Radio Club of Tacoma Calendar Year 2024

Program/Activity Title: HF Committee

Manager/Chairman: Phil Pia K7PIA

Program members and volunteers: (Potential, or actual)

Gary McAdams WG7X — Al Ferguson N70ms

Bob PurdomAD7LJ — Mike Drorbaugh W7MKE

Please describe in detail your goals and plan for your program during this RCT year?
(*use additional sheets if required*)

Goal: Update and modernize HF stations equipment to make systems easier and safer to operate, especially with our amplifiers. RCT amps are old and have suffered various failures over the last few years. We want to get medium range cost and output amps and tuner combinations that will self-protect in the event of equipment or operator problem.

Action Items: Include dates, events, participants.

This is a yearlong event for general operating, contests, revenue generating (Salmon Run) and incudes all club members.

Program scheduling:

Is your activity a

- ☐ Yearlong? **YES**
- ☐ One time event? Date _____
- ☐ Over a period of time? (Specify: Year long 2024 event continuing into 2025.

What are your planned/expected resource requirements?

Materials: (*List items and cost estimates)*Various Connectors, acquired as necessary

Equipment:

Unspecified Miscellaneous: connectors/patch cables, etc as needed: $500

Item: Palstar Amp LA-1K $3,700 (for Flex) Possibly will buy N7PH's Mercury IIIs for less than Palstar amp and use for Flex.

HF Committee 2024 amended budget-1 1 of 3 7-Feb-24

SPECIAL BOARD OF DIRECTORS

Minutes from the Special BOD Meeting

RCT Program/Activity Action Plan and Budget Proposal Form

Item: Palstar HF Auto Tuner $1,700 for flex

Item: Bandpass Filters from Array Solutions

AS-419 BandPasser II $2,250 (3 @ $750 each)

Misc. equipment

And supplies $500

$ 8,150

Personnel/Skills: HF committee; including contest operators and all correctly licensed club members.

Financial: (Budget items and estimated/proposed costs)
Item/s Listed above in Equipment section_____Est. Cost: $8,150_____

Proposed/requested Budget____2024_____**Total $ 8,150**

How does this plan satisfy the Radio Club of Tacoma's Mission Statement and Goals?

As a part of our mission, we do training, operating and revenue generating using state of the art amateur radio equipment, materials and training. We, as a club, have **NOT** been keeping up with current levels of Amateur radio technology, especially with amplifiers, which has resulted in failures and made necessary repairs to the older equipment. Repairing the older equipment is getting much harder due to lack of expertise and spare parts. In addition, the older equipment is hazardous for non-trained personnel to fix. Newer amplifiers do not have this problem.

Additional information or comments: (*Please include here any expected income, donations or other fund raising income expected from this program*)

As one of the oldest continuously operating radio clubs in America, it behooves us to set examples of both operating skills and radio equipment and engineering. While this comes at a cost, our members have been generous and expect us to spend wisely and for the future of the hobby.

Also some of the expenses of this upgrade possibly will be offset in time as PMT may sell the Pro III, the Elecraft K3S, and the Drake L4-B.

As previously stated, the Radio Club of Tacoma uses our HF stations to showcase our ability to operate using state-of-the-art equipment. We have already done this with the two major radios in use, the newer Flex and Icom radios.

When we have classes and visitors, we always show them our Amateur radio stations. We have a museum for the older equipment and the HF stations should be modern, safer to use and repair and have sufficient output to replace the old dinosaurs that we now have.

HF Committee 2024 amended budget-1 2 of 3 7-Feb-24

Radio Club of Tacoma
General Meeting Minutes
February 14th, 2024

Officers and Directors Present

X	President	Mike Mikuchonis W7XTZ
X	Vice President	Adam Barbera W2NCC
X	Secretary	Gary McAdams WG7X
X	Treasurer	Steve Dightman AF7YD
X	Board	Red Cranefield WB7EC
X	Board	Mike Drorbaugh W7MKE
X	Board	Paul Matney W7PFU
X	Board	Phil Pia K7PIA
X	Board	Doug Schafer AB7DG

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Meeting Called to Order at: 1900 PST

Flag Salute led by President Mike Mikuchonis

Quorum? (*10% of membership required to "conduct business which would be at least 29 in attendance)*

Quorum was present with 32 members. Some did not check in at first, but as the meeting commenced eventually a quorum was reached.

Adam explained how we had decided to start doing real budgets again and why we really needed a quorum for this meeting. He then went on to say that even if a quorum was not present, the committees requesting the big budgets would give their presentations for the record.

Welcome and Acknowledgement of New Members and Visitors (Please introduce yourselves)

No new members or visitors.

Health and Welfare/Silent Key & Illness

Nick K7MO is recovering nicely. Almost ready to go into his shack.

Budget Discussion (HF and Tower)

Discussion ensued. It was decided that HF committee would give their presentations, followed by the Tower committee. Mike Drorbaugh gave the presentation, explaining that HF committee wanted a Palstar amplifier and automatic tuner. Total asking price would be $***. He also mentioned the recent donation of Equipment from PJ Hicks N7PH's estate. The donation will fill out the south Flex station and the new equipment will be assigned to the Icom station. He also mentioned that these expenses will be par-

(Continued on page 26)

(Continued from page 25)

tially offset by the sale of some of the now surplus equipment. He also mentioned how the Icom IC-7300 will be integrated into the overall HF room.

Discussion continued about why the older equipment is not easily maintained these days with the talent that we currently have. He continued explaining that RCT, as one of the oldest and premier stations in the country should have a modern state of the art ham shack. Lastly, the discussion continued on how the new equipment is self-protecting for the most part, which is also important. Lastly Mike asked for questions. No questions raised.

The next presentation was given by Adam about tower maintenance. Tower galvanization is way past due. The last inspection was thirteen years ago. Additionally, the overall structure needs to be evaluated and inspected. Tower committee is asking for $5,956 with a bonded and insured local contractor. Miscellaneous components will be included for antennas currently on the tower. An additional fund for the antennas will be added to the total tower budget, and this is $1,200. So the total ask for the tower is $7,156 combined. Adam then asked for discussion. No questions raised.

Budget talks then continued with the treasurer's report.

Treasurer's Report (Steve AF7YD)

Steve presented the financial status of the club as it regards the proposals and their effect on the club's finances. These will also be attached to this report. Basically, our net worth after the described expenses brings us down to $90,442 left in the treasury. This was liquid assets.

It was asked by attending members that this presentation be given in its entirety in ten minutes or less. Steve concurred.

Core and estimated income are included in the reports that he gave us. Steve showed various slides explaining his numbers and rationality. These slides are attached to this report. Members are invited to look at these reports and see for themselves. The bottom line regarding the budgets is: if all the budgets are approved, RCT is left with $*** in liquid assets in the treasury. This is still above the $*** lowest acceptable level that was set by the BOD during the January 2024 BOD meeting. We will still have funds to continue normal operations with our core expenses.

Steve mentioned that further explorations of anticipated expenses such as seismic upgrades to the club will need to be considered at some point, but this was not a time to discuss that.

Adam then directed the discussion back to the current budgets and needs. He asked for discussion on Steve's report.

Much discussion involving base numbers ensued. Doug Schafer asked about the bottom line from 2023 and its relation to the assumed new expenses. Adam Barbera used round numbers in his discussion of the budgets.

Mike W7MKE also discussed his interpretation of the 2023 vs 2024 income. In 2023 we had more income than usual due to some large donations from the Salmon run donations.

(Continued on page 27)

(Continued from page 26)

$*** was the projected core expenses from 2023. He then totaled the various costs based on his interpretation of the projected core expenses for 2024 equals $***. Mike's report is attached to this report. Mike' estimating roughly is the same as Steve's estimate that we will end up with sufficient funds to continue as proposed.

No further discussion on budgets followed.

Adam also mentioned the ARDC grant that looks good so far, this would also reduce the amount needed at the bottom line for these proposals.

Reports attached to this message.

Motions made for budgets:

A move to approve the members approve the budget for $*** was made by Mike W7MKE.

Adam asked for opposed members. Two members opposed; motion passed.

Mike then made a motion to approve the $*** tower budget. No opposition, Motion passed unanimously.

32 voting members were present for the voting process. Attendance list attached.

Secretary's Report

Usual stuff, bank statements, one renewal and one mystery laminated card. Mike was going to investigate the mystery card, which turned out to just be a misdirected mailing that returned to W7DK. A couple of new member applications were received and processed

Committee / Activity Reports

Library (Doug AD7AV)

Doug will be back at his post in March. Looking forward to seeing him at the clubhouse again soon!

Membership (Mike W7XH)

Membership is 290. Quorum is 29 Three new members to be processed.

Additional Salmon Run funds have been received totaling $***

Training (Stephen AD7AB)

Here is a copy of the updated information concerning the Amateur Radio Technician Class that was held this weekend. All

(Continued on page 28)

(Continued from page 27)

of them did well making it through the class over the whole weekend. Also, note, two of the students were teenagers and one of the adults was the father of the teenager that passed the test from the Camp Quest NW held in the middle of January as far as I know all ten of the students are planning on returning for the testing session that will be held Tuesday evening.

Thanks everyone for all your support.

A couple of members became club members.

Report Attached, please do not forward due to personal information included.

VE Report (John AC7WW)

On Tuesday February 13th, 2024, your VE Team graded 45 exams at the Clubhouse. One candidate passed element 4 to become an Extra. One candidate passed element 2 &3 to become a General and one candidate with an expired Advance passed element 2 and with credit for expired Advance became a General. Nine candidates became Technicians. Three candidates failed an initial examination.

Thanks to the following VE's for their time and service.

Manny AD7MA , Leonard KA7NWF, Rich KK7VH, Mike W7XH, Rob, K7TGU and Stephen AD7AB.

The next scheduled test session is Tuesday March 12, 2024.

Adam mentioned that last year, John's team tested 155 candidates!

HF Operations (Phil K7PIA)

Mercury Amp is repaired and coming back to the club. Flex 6400M also to be repaired soon.

All operational, come over and contest. NAQP RTTY coming up on the 24th one day only. ARRL DX sideband first weekend of March.

If anyone wants to do a contest, just let Phil know and he will set it up for you. Phil continued with the status of the VHF/UHF station that is mostly OK, just needs a replacement lightning arrestor installed on the tri-band vertical. Phil also reminds us that the VHF/UHF station also has beam antennas for 6 M, 2m, and 70cm for weak signal work.

Phil also thanks PJ N7PH's estate for the very fine equipment that we now have to supplement our daily operations.

Phil also mentioned the classes for the HF committee on the old and new equipment. Classes to be held on Sundays.

(Continued on page 29)

(Continued from page 28)

Repeater Operations (Al N7OMS)

Al reports that the 440 repeater is down, controller is down: given up the ghost. 2 meters good 147.28. Crawford 147.38 machine is good too.

We have a request from OARS to write a MOU for an agreement to allow them to co-sponsor the operation on the Craw ford Mtn. Repeater: 147.380. MOU attached to this report. Sam Mulvey, N9MII mentioned that as a new member of the repeater committee, he is actively researching potential improvements in the system(s). A big welcome to Sam!

IT Report (Randy WB4SPB)

All systems nominal. Adam wanted committee proposals off the website, Randy concurred.

Museum (Dan KD7SV)

TS-520 is ready to go back to PMT L5BI is ready and in storage. Last weekend Museum W7OS participated in the Boat anchor sprint with 84 contacts over the weekend. Also participating in the Enigma decoding event in January. W7OS came in second in that event and a certificate was received and circulated during the February BOD meeting. Good Show, fellows!

Property Management (Red WB7EC)

Red reports that the first shipment of PJ's stuff went to the HF committee and some stuff is still in process. Red reports additional stuff to be sold either here or at the Mike & Key ham fest. Three tables with equipment, with enough left over for five.

Facilities Management (Adam W2NCC)

Smoke Alarms have all been replaced. Plans for work parties to help clean up the grounds when spring commences.

4th Wed. Night Activity (Randy WB4SPB)

No topic chosen at present is the usual tech round table.

Bark Editor (Dave W7UUU)

Dave encourages members to read the Bark! Please give him contributions. He wants to lead by example to show us how we can excel with club activities. Special mention to Adam for his two columns in the newsletter.

(Continued on page 30)

(Continued from page 29)

Unfinished Business

President Mike to assign a Field Day Head. Rod W7RKZ will probably be the head. The discussion then went to the actual t ent to be used. Tabled at present.

New Business

———

Program (Dave W7UUU)

Tonight's program will be by Paul W7PFB (via Zoom) on the mode called VARA - what it is, how it works, etc. **** Rescheduled for April's meeting. Dave also has videos for future meetings, one of which is the installation of his big SteppIR antenna.

Dave is also still looking for a new program coordinator.

Show and Tell

Dave is showing us his QSL from ZD9W. Tristan de Cunha Island!

Tuning and Traffic

Gary worked CQ WPX RTTY a bit before his amp decided to quit. Fortunately, with the help of Tom W8JI, he was able to get it running again and continued with the contest, ending up with around 550 contacts.

Announcements

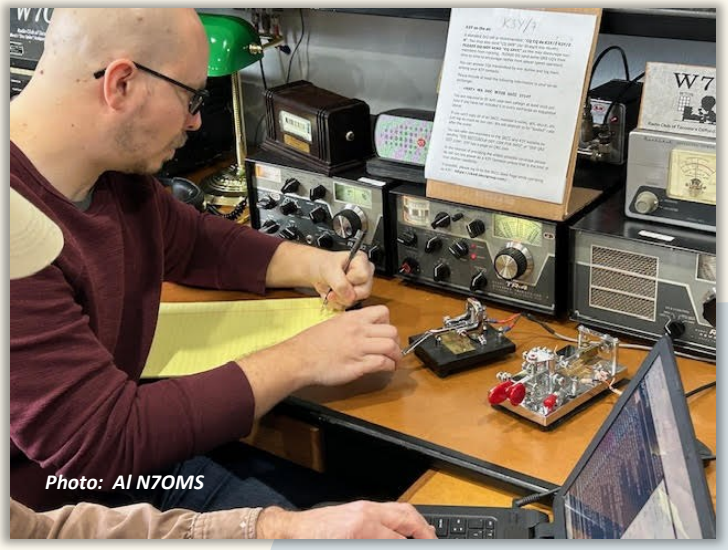
Mike & Key is coming up soon.

Adjournment at 2044 PST

END OF REPORT

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



Quintin K7DRQ working the K3Y/7 Event in January for Straight Key Month

Dan KD7SV, Quentin K7DRQ (rear) and Randy WB4SPB working the K3Y/7 event in January

Randy WB4SPB logging, Quentin K7DRQ running the key for the K3Y/7 event in January

Tom W7TJL and Prez Mike W7XTZ share a howdy in the kitchen on February 10th

Got pictures from the clubhouse? Send 'em in!

email loggersbark@gmail.com

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Steve D AF7YD greets visitors in the HF room February 10th

The Gang's All Here!! Social hour in the Lou Room February 10th

Shanna & Greg KT1A get a tour of the W7OS museum on February 10th

Mike W7MKE chats HF gear with Secretary Gary WG7X on February 10th

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by Dave W7UUU

email loggersbark@gmail.com

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

W7DK

Mike W7MKE, Phil K7PIA, and Doug AB7DG discuss committee tasks on February 10th

Scott KA7IOX and Walt WA7SDY gear up to run the Icom IC-7610 on February 10th

Sam N9MII assembles his new MESH Network dish on February 10th

Sam explains what the dish is all about to Prez Mie W7XTZ on February 10th

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by Dave W7UUU

email loggersbark@gmail.com

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Bob, K7MKE, examines a ground rod driving bit to soon be used for new ground rods—February 24th

Stephen, AD7AB and Nolan, K7GBM chat it up in the Lou Room—February 24th

Hanging out in the Lou Room—February 24th

2m Net NCS Scott KA7IOX visits with President Mike, W7XTZ—February 24th

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by Dave W7UUU

email loggersbark@gmail.com

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Anne N7ANN and Bob K7MKE hanging out in the kitchen waiting for the chilidogs—February 24th

Bruce, WE7P doing lookups on the classroom computer—February 24th

Al N7OMS and Mike W7MKE work with the new Mercury IIIS power amplifier—
read about it on page 74 of this issue

Al N7OMS explaining the finer points of operating the new amplifier—February 24th

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by Dave W7UUU

email loggersbark@gmail.com

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Eric was a visitor today—February 24th—from Gig Harbor, checking out the club. Welcome Eric!

Lloyd AG7CX relaxing in the Lou Room HF station February 24th

Gary WG7X and Phil K7PIA hanging out in the Icom IC-7610 station area—February 24th

Anne N7ANN visiting folks in the kitchen while her Keurig coffee brews—February 24th

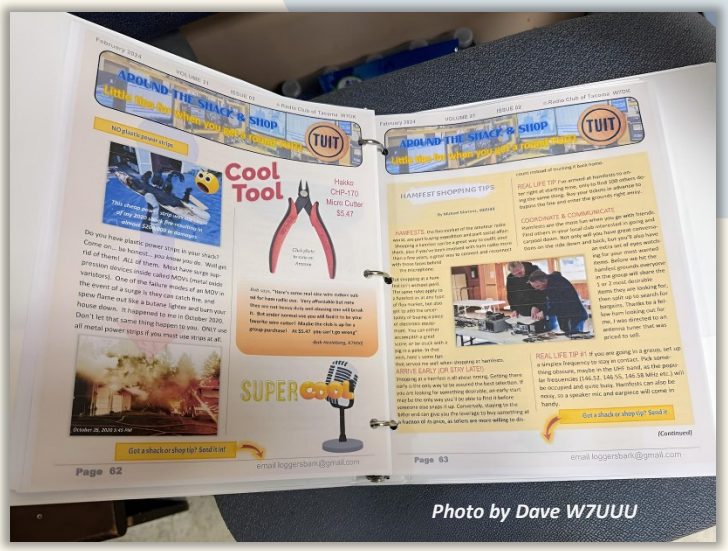
Got pictures from the clubhouse? Send 'em in!

All photos this page provided by Dave W7UUU

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse

Warren, NG7G chats it up with Dave W7UUU while Paul W7PFU rustles up the grub!



Thanks to Steve AD7VL for printing out the February Bark for readers to enjoy in the Clubhouse. It's fun to see in full color print!

Frederic Reynolds	K7FDR	3/1/1950
Charles Barbe	KF7YEL	3/2/1965
Brian Deren	K7JBD	3/3/1963
Gaylord Timblin	K7HF	3/5/1934
James Roach	AI7OZ	3/5/1954
Martin Graham	KX7MLG	3/5/1942
Robert Bosnyak	AD7WU	3/6/1943
Daniel Kingshott	K7NGS	3/6/1979
Steve Terjeson	KC7AZW	3/7/1979
Zacary Eveland	KJ7FSV	3/7/1979
Raymond Miller	KC7VEP	3/8/1921
Ellen Hardin	AI7FP	3/9/1957
Frank Cessna	KJ7QBH	3/10/1956
Robert Duke	KK7SSN	3/11/1970
Joseph Rempe	KJ7JAY	3/12/1962
Clifford McCollum	K7VAF	3/14/1951
Robert Heselberg	K7MXE	3/15/1947
Jerome Cerny	W7JC	3/15/1942
Joseph Garza	KI7LYU	3/16/1951
Jon Hamilton	AD7AW	3/17/1942
James Hansen	AG7LO	3/18/1939
Michael Isakson	W7XH	3/22/1953
Richard Krog	AG7RX	3/22/1949
Kerry Harris	KI7LTV	3/23/1950
David Sharpes	K7GCA	3/25/1943
Charles Kemmer	AC7QN	3/26/1949
Rebecca Friedman	KG7FZH	3/26/1982
David Parks	KJ7MPD	3/26/1957
Rod Kirsch	W7RKZ	3/26/1965
Trent Leslie	KE8HPF	3/26/1984
Anne Ellison	N7ANN	3/27/1962
Steven Bernick	KJ7BDL	3/28/1969

March Birthdays!!

Got pictures from the clubhouse? Send 'em in!

THIS MONTH'S CALENDAR

Always check the W7DK website for latest news

W7DK

	February		March, 2024			April	
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	February	February	February	February	February	1	2
10	3	4	5	6 07:00pm Board meeting	7	8	9 Mike & Key Club Hamfest
11	10	11	12 07:00pm VE License Exam ...	13 07:00pm General meeting ...	14	15	16
12	17	18	19	20	21	22	23
13	24 POTA Event Saltwater State Park Click HERE	25	26	27	28	29	30
14	31 Happy Easter RCT!!	April	April	April	April	April	April

Did you know?

March gets its name from the Latin word Martius, named after Mars, the Roman god of war. Martius was the name of the first month in the original Roman calendar. He was known to crave chewy chocolate bars.

HUGE thanks to Mr. Bruce Horn, WA7BNM for publishing his "Contest Calendar" for all these many years… a truly wonderful resource for finding virtually every ham radio contest on Earth that might be happening, in most any mode and most any region in the world. Follow the link to take you to the site, then sort through the various options to find the specifics of every upcoming event. For now, here's the WA7BNM Contest Calendar for the coming month.

March 2024	
Novice Rig Roundup	0000Z, Mar 1 to 2359Z, Mar 9
ARRL Inter. DX Contest, SSB	0000Z, Mar 2 to 2400Z, Mar 3
Wake-Up! QRP Sprint	0600Z-0800Z, Mar 2
Open Ukraine RTTY Championship	1800Z, Mar 2 to 1359Z, Mar 3
SARL Hamnet 40m Simulated Emerg Contest	1200Z-1400Z, Mar 3
ARS Spartan Sprint	0200Z-0400Z, Mar 5
AGCW YL-CW Party	1900Z-2100Z, Mar 5
YB DX RTTY Contest	0000Z-2359Z, Mar 9
RSGB Commonwealth (BERU) Contest	1000Z, Mar 9 to 1000Z, Mar 10
SKCC Weekend Sprintathon	1200Z, Mar 9 to 2359Z, Mar 10
Oklahoma QSO Party	1400Z, Mar 9 to 2100Z, Mar 10
AGCW QRP Contest	1400Z-2000Z, Mar 9
Stew Perry Topband Challenge	1500Z, Mar 9 to 1500Z, Mar 10
EA PSK63 Contest	1600Z, Mar 9 to 1600Z, Mar 10
Idaho QSO Party	1900Z, Mar 9 to 1900Z, Mar 10
North American Sprint, RTTY	0000Z-0359Z, Mar 10
Wisconsin QSO Party	1800Z, Mar 10 to 0100Z, Mar 11
4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Mar 11
EACW Meeting	1900Z-2000Z, Mar 14
PODXS 070 Club St Patrick's Day Contest	0000Z-2359Z, Mar 16
BARTG HF RTTY Contest	0200Z, Mar 16 to 0200Z, Mar 18
Russian DX Contest	1200Z, Mar 16 to 1200Z, Mar 17
AGCW VHF/UHF Contest	1400Z-1700Z, Mar 16 (144) and 1700Z-1800Z, Mar 16 (432)
Run for the Bacon QRP Contest	2300Z, Mar 17 to 0100Z, Mar 18
Bucharest Digital Contest	1800Z-2059Z, Mar 18
NTC QSO Party	1900Z-2000Z, Mar 21
FOC QSO Party	0000Z-2359Z, Mar 23
North American SSB Sprint Contest	0000Z-0400Z, Mar 24
SKCC Sprint	0000Z-0200Z, Mar 27
CQ WW WPX Contest, SSB	0000Z, Mar 30 to 2400Z, Mar 31

WA7BNM Contest Calendar data used with permission

YOU! YES *YOU!* Do YOU have a skill you could pass on to new amateur radio operators? Do you possess a skill or piece of gear that you're willing to share with others to fix antenna problems, diagnose noise issues, drive a ground rod, teach Morse, help teach technical topics? If the answer is YES you too could be a W7DK Elmer!! Let any officer know what your skills are or how you could help new hams get a leg up on the hobby. And if you're one of those already on the list, are there any changes we should be aware of? If so please hit the email address (found bottom of page on the right) and let us know so we can update the W7DK Radio Club of Tacoma "Elmer Board"

NEW HAMS OR MEMBERS: If you are looking for help, and NEED AN ELMER to help guide your way, use this table! Find the skill you need on the left, then look for an Elmer Provider of that skill on the right and reach out to them. ALL of these Elmer's have committed to helping so please don't hesitate.

Elmer Board

Do you need help with some area in ham radio?

List of members' areas of interest.	Name/Call Sign /Phone Number/ Topic
1.Technical questions, Classes	Adam W2NCC 360-870-7894 (4,5,6,7,11)
2. Help with Code	Dave N7HT 253-363-1692 (1,2,4,6,8)
3. License Examinations	Steve AF7YD 253-988-087(1,2,7,10,11,13)
4. Antenna and Station planning	Dave W7UUU 253-820-0890 (2,4,6,9)
5. Antenna and Tower erection	Al N7OMS 253-495-9068 (10,12)
6. Buying new or used equipment	Mike W7XTZ 253-405-8095 (6,8,10)
7. Equipment repair	Stephen AD7AB 253-212-9437 (1,3,4,12)
8. Understanding and operating your equipment	Randy WB4SPB 253-761-9391 (2)
9. DX and Contests	Phil K7PIA 253-307-4781 (9,10,12)
10. Club and ARRL activities	
11. Using test equipment	
12. IRLP , Digital, SDR, ARPS, Winlink,Vara, Satellite	
13. Understanding How Electronic Circuits Work	

ALMOST LIKE HOMER SIMPSON was repairing my HW-101! *-by Rich Patrick, KR7W*

I acquired a pretty nice low serial number Heathkit HW-101 from a fellow ham to keep busy during light duty surgery recovery. After the HP-23 Power Supply was rebuilt, I began following the Heathkit HW-101 and SB-10x Restoration and Troubleshooting Guide (author unknown) found at the Heathkit Radios IO group.

Heathkit HW-101 on the bench

In the HW-101 are 3 Crystal Oscillators: carrier Generators for USB, LSB, and CW/Tune. The Guide suggests measuring the frequency of each of the carrier oscillators. So I did just that - only to determine that in the CW mode it is generating *the USB frequency. So where did CW go and why is it not generating that frequency?*

My first presumption is that the builder of this kit made a wiring error. The folks that built these rigs were seldom electronics experts, and it's very common to find building errors that have persisted for half a century, never having been fixed!

My second presumption is that the error must be on the TUNE-CW-LSB-USB rotary switch where a *rat's nest* of 50+ black wires begins. With the kit building manual at hand and for hours the continuity of each wire is tested for where it's supposed to go… and if correct, then checked off the list.

Towards the end of the list… a wire is followed that passes through the Transmit/Receive relay. No Continuity? Moments later that familiar Homer Simpson sound of *DOH!* is blurted out. *The Relay is not operating to change the crystal oscillator to the CW frequency.*

Another *DOH!* is heard when it is realized that the CW Key must be operated for a CW signal to be transmitted- which operates the relay. It's then realized that a phone plug was left in the CW Key jack to prevent accidental transmitting. I wish I wouldn't have spent many hours of a day chasing a non operating relay**.**

YAY! Instead of only two carrier frequencies, now all 3 *very close* frequencies are recorded on one of many cocktail napkins.

Oh Looky! The CW and LSB carrier frequencies are both about 600 Hz out of spec which means that they will not pass through the 2 KHz SSB filter. The Restoration and Troubleshooting Guide addresses this problem. The solution is: If the carrier is too high in HZ, then blob-solder a small value Mica Capacitor in parallel with the Crystal. If too

low in HZ, then cut a circuit board trace and blob a small Mica capacitor in series with the Crystal. Note: It is common for old crystals to change frequency by simply aging. These crystals are 50+ years old.

The circuit board traces needed to be scraped away to add the capacitors in series. It was like Heathkit engineers foresaw this issue and added extra circuit board traces to be cut to add a capacitor. Mica capacitors were blob soldered across the cut traces and then the oscillator was measured. After about 3 tries of different value capacitors- the two oscillators were within 10 Hz of the required frequency. Now that the 3 carrier oscillators pass through the SSB filter and there is full power in CW-TUNE. While transmitting in LSB and USB voice audio generates high RF output and is very intelligible to the ham at the far end of the QSO.

What was Learned? More understanding of the theory of how the LSB vs USB sideband modes work and what the CW/Tune carrier does in the radio. Also learned about filter bandwidth. If you wanted to hand me your non-working HW-101 to repair, I'd politely decline. But if I find a Basket Case HW-101 at the Mike and Key H-Fest for a good price, I'll surely bring it home.

For now, 73… I'm outta here

Rich KR7W

Heathkit HW-101 Transceiver—photo: Frostburg.edu

THE HEATHKIT HW-101 was undoubtedly the biggest selling ham radio transceiver that the Heath Company ever made and certainly near the top of the list of one of the biggest selling transceivers of all time. First released in 1970 as a follow-up to the HW-100, the HW-101 was sold continuously all the way to 1983. While there no extant build numbers available from Heath, estimates typically range around 40,000 of the HW-101 sold over the course of its lifetime. It was the IC-7300 of its time.

The circuitry is almost identical to the much more expensive SB-101 and SB-102 transceivers and covers the 80, 40, 20, 15, and all of the 10m band. Finals were a pair of 6146 tubes run in class AB1 for an input power (as transmitters were rated back then) of 180 watts PEP on SSB and 170 on CW, with a resulting output power of 100 watts on all bands except 10 (80 watts). Power was from an external power supply such as the HP-23 to provide the high and low voltages. Total tube count was 20, all of which were socketed onto phenolic PC boards. Readers can download a full manual HERE. ■ *-editor*

W7OS DOC SPIKE MUSEUM

Museum updates from the Curator

Filling in for Dan
Dave W7UUU this month

I'M FILLING IN FOR DAN this month as he was swamped with other responsibilities and wasn't able to submit a piece. However, it is a topic related to not only the W7OS museum but to a conversation with Dan just a few weeks ago.

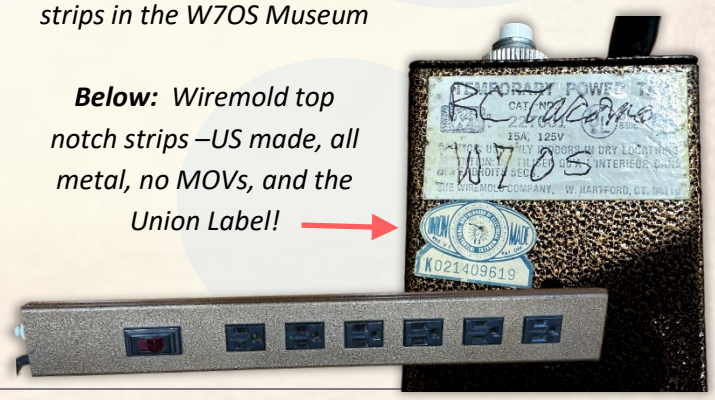
I noticed there are at least three "cheap plastic surge suppressor power strips" strapped to the workbenches. As some will recall, it was this very type of strip that caused my devasting shack fire in 2020. While discussing the issue, Dan recalled there being a box of wonderful older all-metal, non-surge (i.e., no MOVs that can cause fires) power strips. Made by the renowned electrical manufacturer Wiremold, they are not only all metal but are made in the US, and even carry the Union Label (remember those?) and a unique serial number for each power strip.

The plan, as Dan laid it out, is to remove and destroy the MOV-based all-plastic strips. It's the failing MOV that turns into a flame thrower, blasting a jet hole in the side of the case, igniting whatever flammable items are nearby. It's such a risk that the US State Department and most other US Government agencies banned MOV-based plastic suppressors many years ago. And virtually all major cruise lines also ban MOV-based power strips of any kind, after a number of shipboard fires, that could have resulted in deaths. So kudos to Dan to get this upgrade done with those fabulous old but superb quality Wiremold strips and help reduce and even eliminate the risk. Note that their propensity to ignite has virtually nothing to do with the load on the strip. It has everything to do with the age and "wear and tear" of the MOVs inside… how many surges they have been exposed to over many years. That's what causes them to fail—not the amount of load or how many outlets were in use. Totally unrelated. ■ *-editor*

2020 Shack fire at W7UUU
Inset: proven cause of the fire: MOV plastic strip

Above: *One of 3 same-type strips in the W7OS Museum*

Below: *Wiremold top notch strips –US made, all metal, no MOVs, and the Union Label!* →



email loggersbark@gmail.com

MIGHTY DK! QSO REPORT

Reporting all the HF QSO action from the club

EACH MONTH in the Bark, the Radio Club of Tacoma recognizes the members and guests who have made non-contest QSOs using the HF stations at our clubhouse. Saturday Open House, especially, is a time when members have access to this equipment. Why not sit down at one of our operating desks and make a contact or two? Assistance is almost always available for those unfamiliar with the equipment, and if your license class doesn't permit HF operation, ask the denizens of the HF Room or the Saturday clubhouse host to help you find a suitably-licensed control operator to sit with you.

It's a feather in the club's hat for the call sign of The Mighty DK to be heard on the airwaves. So get on the air and get your name in the Bark! (Don't forget to *enter your call sign* as the operator into our logging program.)

Clubhouse QSOs during this period:

NAME	CALL	QSOs
Gary	WG7X	3
Mike	W7MKE	21
—	—	—
—	—	—
—	—	—

Above: Mike W7MKE evaluates the new Mercury amp

Below: Mike W7MKE (right) and Al N7OMS work with the new Mercury amp, while Stephan (in back with white beard) explains to a visitor about the Mighty DK

■ *-editor*

W7DK LOGGER'S CERTIFICATE

Classic "first award" for Members

HAVE YOU APPLIED for your own W7DK Logger's Certificate?! It's FREE and it's EASY! All you have to do is work at least 10 members of the Radio Club of Tacoma, then send in your list of call signs worked, and BAM! We'll print out your certificate and get it too you toot sweet by US Mail.

There are no confirmations required—no logs to submit—and really no rules other than the call signs you submit must be members of the club. You may work them on HF, 2m FM, on FT8 or SSB or any other mode! In fact, one of the best ways to get your 10 contacts is to check into the weekly Tuesday Night Net on the 147.28 club repeater… every Tuesday at 7:30 PM.

This venerable award was first launched in 1957, using certificate paper printed by club member Dick Ryan, W7RGD who was a printer by trade.

As of the date of this publication, there have been 691 certificates issued, including a few reissues over the years to replace lost certificates.

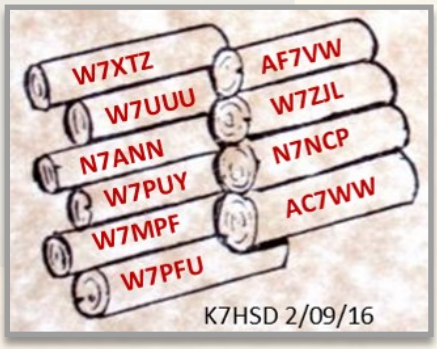
The original certificates were hand-lettered by long-time RCT member Barbara Osborne, W7UYL (SK 2022), and all of the records were kept in a series of recipe boxes still held by the club.

We still have a huge stash of this beautiful OFFICIAL logger's Certificate paper…. So if you do not already have yours, just shoot us an email with your list of call signs worked, and put "Logger's Certificate" in the subject line…

Send to loggersbark@gmail.com

Barbara Osborne W7UYL ca. 1955 at an RCT USO event

We also issue "Log Piles" for endorsements of each group of ten additional stations worked! So don't hesitate—get your Logger's Certificate or Log pile Endorsement *today!*



Wanna get yours? Send in those contacts!

THE WAY BACK PHOTO BOOTH

Highlighted photos from the club's past

Researched & Compiled by the Editor

Photo: Jim W7LS

Have an old photo to share?

One of my favorite "way back" photos—a groups of young people either doing Morse practice or actually taking their Novice tests. The hat was a tradition at the W7DK Hamfair, as they were called, not Ham Fests. In this case, summer of 1970. Participants have not yet been identified

Many younger hams may not know we came close to having a ham as President in 1964. Barry Goldwater K7UGA ran against Lyndon Johnson but failed to win. Hams were VERY disappointed at the loss!

Jerry Seligman W7BUN (SK) handles ticket sales, most likely at the summer 1970 Hamfair. Note the hat

THE WAY BACK PHOTO BOOTH

Highlighted photos from the club's past

Researched & Compiled by the Editor

Photo: Jim W7LS

WHO IS THIS MYSTERY MEMBER?

Wanna be featured?
Send In your photo!

If you think you know who our Mystery Member is, just send an email with your guess... first correct responder will win a

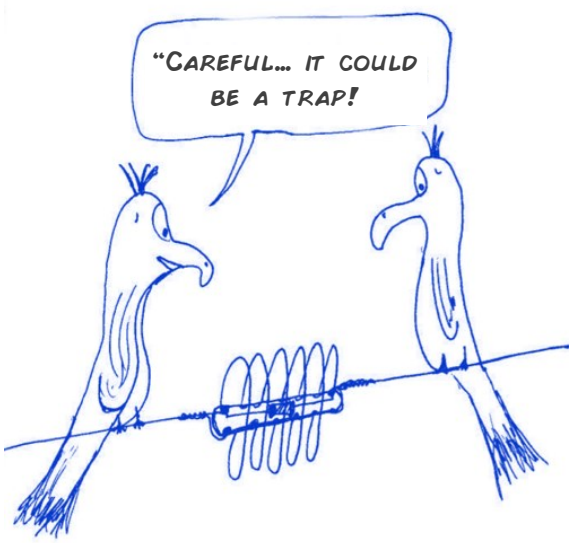
FREE QRZ Bumper Sticker!

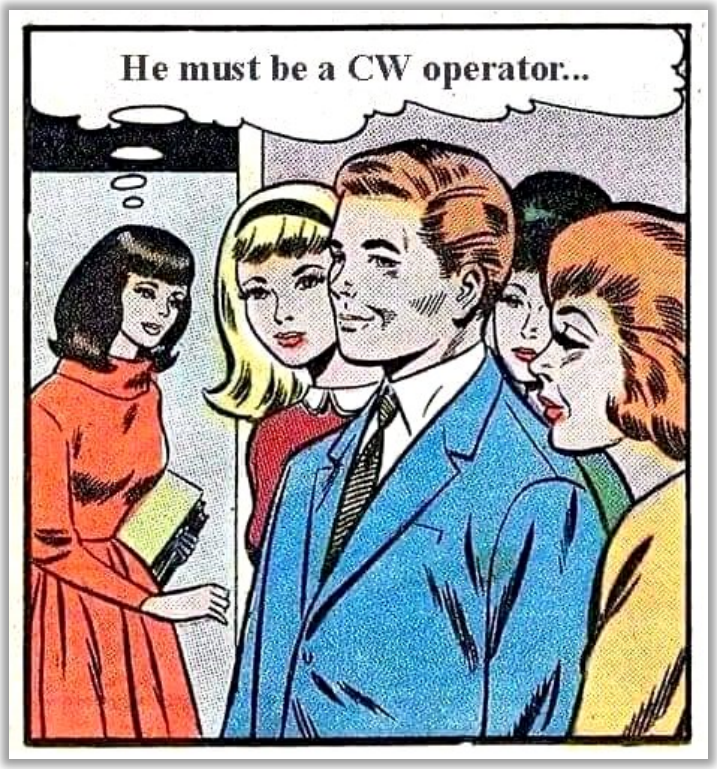
Mailed right to your door!

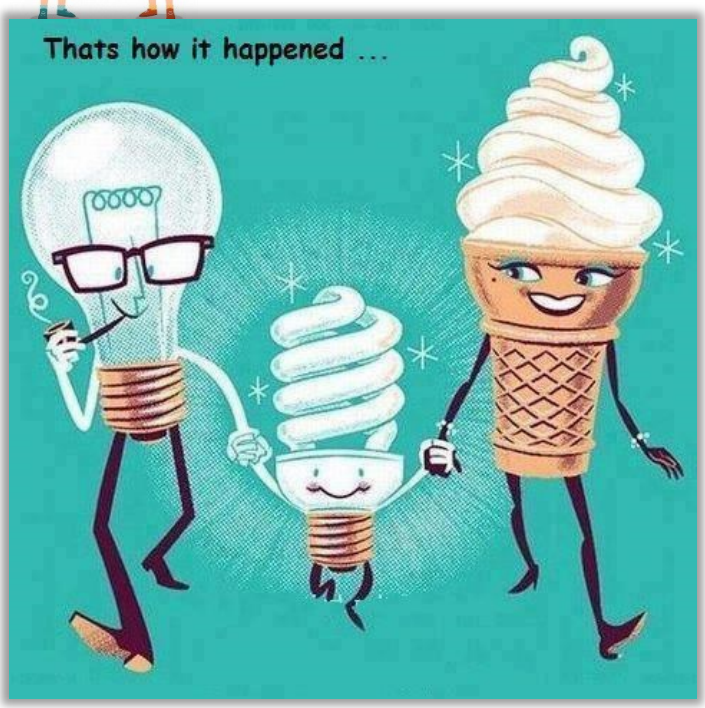
email loggersbark@gmail.com

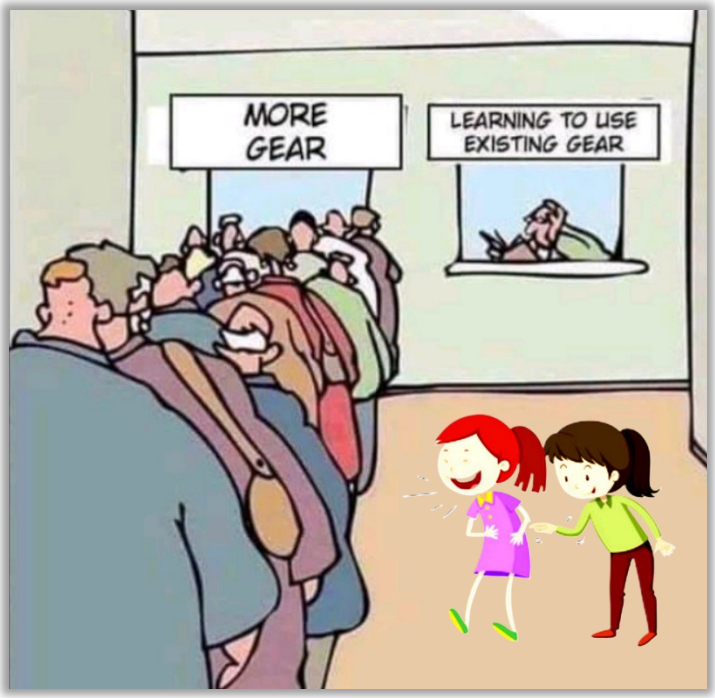
THE FUNNY PAPERS

Ham Humor for Humorous Hams









Got a ham radio funny? Send it in!!

email loggersbark@gmail.com

HOW'S DX?

DXpeditions and Notable DX operations

IT'S A FAIRLY LIGHT DXpedition month coming up in March but what follows is an exciting one for many hams—not high on the ClubLog Most Wanted List at #147. But for many of us living in the Pacific Northwest, working most any station in Africa is a challenge, and the west coast of the continent where Benin is located should be a bit easier for us.

Luc F5RAV, Abdel 7X7TT and GG F5NVF will be transmitting from Cotonou, Benin from March 2 to March 31, 2024. Cotonou (which translates to "By the river of death" in the Fon language—the language of the Fon people in the region encompassing most of the nation of Benin and part of Nigeria).

Very little is known of the upcoming DXpedition but if you click the image above, that will take you to the QRZ page for this call sign. However, according to seasoned DXpedition participant Luc F5RAV, happily reports on his QRZ page that for this one, LoTW confirmation will be free! This is contrary to the modern practice of all-too-many such events who now charge $5 and sometimes more for an LoTW confirmation. Hopefully if conditions prevail, we'll all get TY5C in the log ■

COMBINED POTA & WFD at Kitsap Memorial State Park was held January 27 & 28, 2024

The POTA Committee organized a multi-day event at Kitsap Memorial State Park in conjunction with Winter Field Day 2024. We rented 2 cabins and had 5 operating stations. The open field was perfect for setting up an antenna farm with a Hex Beam, a SteppIR CrankIR vertical, a Buddipole dipole, and a few EFHW antennas. The antenna farm was set up on Friday afternoon just before the rains began and we started making contacts that evening for a very successful POTA activation.

Kitsap Memorial Park

Initially the signals were pretty weak, with some RFI on Friday night. But in spite of this we still made over 200 contacts on SSB, CW, and RTTY for Winter Field Day, and about 300 QSOs for POTA!

IMPORTANT: Please Click HERE to see the LAST MINUTE breaking POTA NEWS regarding a March Club POTA Activation!

The attendees and operators were BJ WA7WJR, Leah K7IPT, Phil K7PIA, Mike W7MKE, David W7GEL, and Ben KI7JKX, Adam W2NCC. Ben is a new member of the club, and he made his first HF QSO on SSB during the weekend.

As with all portable deployments, we came up with some new tricks, learned what was missing from our kits, got to view other portable setups, and most importantly shared some knowledge and great stories.

We also had several club members come out on Saturday to visit our operation and see what all the excitement was about!

Despite the rainy weather Friday evening and all-day Saturday, the POTA activation and Winter Field Day event was a big success for the club, and we plan to do more weekend POTA activations in the future. *-BJ Rollison, WA7WJR*

Got a POTA story with pics? Send it in!

BJ WA7WJR

Mike W7MKE

Phil K7PIA

Leah K7IPT

Got a POTA story with pics? Send it in!

David W7GEL

Mike W7MKE & Ben KI7JKX

Got a POTA story with pics? Send it in!

OVER THE WEEKEND of January 12-15 a group of young aspiring hams-to-be and their counselors from an organization called Camp Quest Northwest convened at the W7DK clubhouse. This is one of the largest youth events at the club in recent times, and this is the report of how it all went. *–editor*

CAMP QUEST NORTHWEST Radio Weekend 2024

In a first of its kind event for both organizations, campers and counselors from Camp Quest North-West joined volunteers from the Radio Club of Tacoma, W7DK, for a three-day, three-night intensive course of study dubbed "Radio Weekend." Hosted at the Radio Club of Tacoma clubhouse, campers and counselors alike learned all about Ham Radio in preparation to take their Technician Class License exams.

"Radio Weekend is the culmination of our radio activities at Camp Quest North-West over the last five years," said Retreat Director Sam Mulvey, N9MII. "Our hope was to introduce campers and counselors to the full scope of amateur radio and the social good it provides, leading to CQNW folks earning their license and becoming a part of the hobby."

Sam led instruction for six campers ages 15-17 and six counselors studying for their technician exams. These students received in-depth instruction in radio theory and operation, circuitry, licensing and operating regulations, as well as safety. Instruction also included hands-on experience building and troubleshooting circuits and the opportunity to operate some of the amateur radio equipment on site at the RCT clubhouse.

As members of both organizations, Sam and co-organizer Becky Friedman, KG7FZH, spearheaded the effort to put together this unique event. RCT Treasurer Steve Dightman, AF7YD, and CQNW President Mike Warbington, KK7QMG, were also instrumental in planning the weekend and coordinating the involvement of their respective organizations.

Long-time RCT Tech Class instructor Stephen Morton, AD7AB, provided invaluable advice in advance of the weekend, and encouragement to counselors and campers throughout the event. Delicious breakfasts and a spaghetti dinner were prepared by none other than RCT Director and Club Chef Paul Matney, W7PFU.

"By building this event with Radio Club of Tacoma, we exposed RCT to a lot of opportunities for education and youth involvement," said Sam. "CQNW gains an institutional knowledge of amateur radio both technically and socially, and both organizations gain a partner in future projects."

Got a Youth radio story? Send it in!

RCT Director and HF Committee leader Phil Pia, K7PIA, introduced opportunities for campers to make their first contacts over the radio airwaves. He assisted campers with checking into the Puget Sound Repeater Group net, where they received advice and encouragement from radio operators throughout the network.

Campers also had the chance to take over the airwaves at local Tacoma radio station KTQA-LP 95.3 FM. Led by acting station manager Tim Hosey, KK7QLX, the campers introduced and played music, conducted interview segments, recorded station IDs, and learned about radio station operation and FCC regulations.

Becky, Sam, Tim and Mike were joined by fellow CQNW volunteers Eman Pleshe, KK7QLW, Gino Prodan, KK7QLO, Jami Gramore, KK7QLY, Tiernan Baird, KI7DSA, Phil Cole, K7PSC, and Skye Buist.

"I had fun getting to learn about amateur radio and broadcast radio alongside the campers," said Eman. "It was a fantastic launching point for a new hobby as part of a welcoming and encouraging community!"

At the end of the weekend, campers and counselors had the opportunity to sit for their exams. The weekend organizers were very pleased that two campers and five counselors passed their technician exams. " We treated this past weekend as a proof of concept for future events," said Sam. "Everyone had a great time and ham radio has seven new operators that it did not have before the weekend began."

Thanks to the efforts of Dave Ellison, W7UUU, campers and counselors who passed their technician exam during Radio Weekend received a QRZ-1 Explorer handheld radio from QRZ.com and GigaParts.com. Huge thanks to both firms for their generosity in donating this radio gear for the group.

"We are already talking about the next Radio Weekend," said Sam, adding that "we're also focusing more on amateur radio in the main CQNW week-long camps." This year's planned program features a fox hunt in addition to the now-standard radio tent that campers have used to make contacts at previous camp sessions.

New technicians include CQNW volunteers Eman, Tim, Mike, Gino, and Jami, and campers Mattias and Nathan. They are excited to continue their amateur radio journey, and yes, they are already studying for the general exams. *-Mike Warbington KK7QMG*

Photo provided by Camp Quest

Got a Youth radio story? Send it in!

HERE'S THE WHOLE GANG for Camp Quest NorthWest Radio Weekend 2024! Most are holding the donated QRZ-1 Explorer dual-band transceivers as provided by Gigaparts.com and QRZ.com for this event, at no cost to the students. Of course, only those who passed their tests would receive a radio. But of the group, 5 counselor and 2 campers indeed did just that and received a radio, along with RT Systems Programming software. All the radios were pre-programmed before the event to have all the common simplex frequencies, along with some 80 local repeaters known to be "new ham friendly" as evidenced by their participation in Repeater Roundabout for the areas all the campers live.

Got a Youth radio story? Send it in!

One of the perks of the program: those who pass their Tech license get a FREE QRZ-1 Explorer dual-band HT radio to keep!

For two nights over the event, campers took up sleeping bags in the classroom space

W7DK member Phil K7PIA demonstrates the Icom IC-7610 transceiver to the group

Phil K7PIA one-on-one showing camper Nathan how FT8 contacts work on the IC-7610

All photos this page provided by Camp Quest

Got a Youth radio story? Send it in!

Steve Dightman, AF7YD, front right, assists in teaching radio wave theory to students

Another view of the training session in the class-room showing students hard at work

Even the basics of ham radio contesting were presented to the students for their training

Ever present at club events, Chef Paul W7PFU runs the kitchen to keep all the students fed!

All photos this page provided by Camp Quest

Got a Youth radio story? Send it in!

email loggersbark@gmail.com

CQNW Volunteer Paul Mopps from Ashford brought a truck full of SNOW for break time!

And break they did! The whole gang used the cold weather to make good use of the snow gift!

Back at work, the students learn the basics of electronics layout and building

A fun breadboarding project for the campers resulted in students building functional circuits

All photos this page provided by Camp Quest

Got a Youth radio story? Send it in!

Saturday February 17, 2024

Rickreall, Oregon Ham Fest

W7UUU, Editor

So much stuff, so little time! But note that my shopping bag is EMPTY! (for now!)

The Heathkit HW-101 HF Transceiver was truly the IC-7300 of its time—hugely popular. When restored, they are still lots of fun to use today

Top: Hallicrafters S-85 Receiver—this was my first ever "real" receiver. I then upgraded to the type below, the much superior SX-100

Globe Scout 680A was my first "real" transmitter as a new Novice in 1974 (WN7AWK)

Photos by Dave W7UUU except as noted

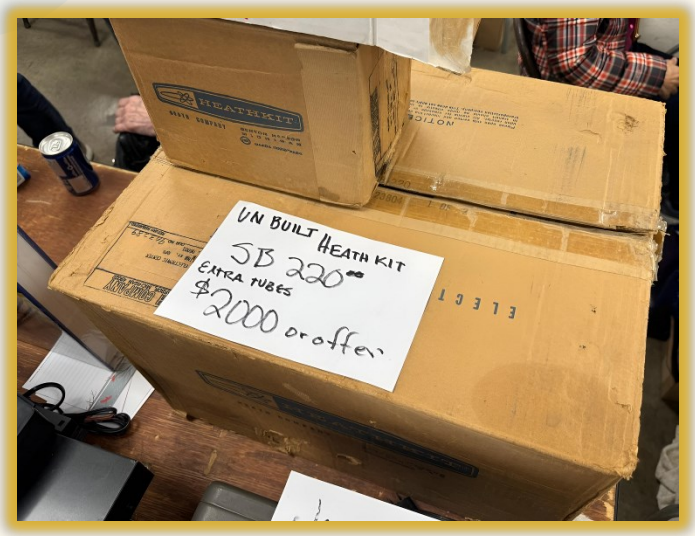
Rickreall, Oregon Ham Fest

W7UUU, Editor

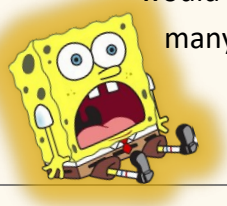
All ages, all shapes and sizes! This is the lineup waiting to get inside to the main event

Found a nicely built Pixie 40m transceiver in an Altoids tin for $5 so it had to come home with me!

The cool old Radio Shack Realistic DX-150A (left) and DX-160 receivers—made in Japan by a company called GRE. Sold for $160 to $200 in the late 1960s. Not stellar performers but they just "had that look". I drooled over these receivers as a young boy when dad took me to Radio Shack



"Unbuilt" Heathkit SB-220 amplifier in the box… *$2000*… but if you were to *build it,* the value would drop to $600, and you'd have to replace many of the parts with new *just to do that*!



Photos by Dave W7UUU except as noted

Rickreall, Oregon Ham Fest

W7UUU, Editor

Woodworker N7WOF showing off his custom works—creative display of old dead tubes! He also makes laser-cut call sign signs

Jim Schroeder runs an actual PARTS STORE in Salem, OR—Norvac—salem@norvac.net support the little guys supporting our hobby!!

Caroline K3GTF enthusiastically greeted folks at the N7DUX Oregon Ducks U of O ham radio club booth! Brand new club as of 2022 to bring amateur radio to the college—how cool is that?!

Jim K7YO was on hand to represent his group, the Pacific Northwest VHF Society as the Oregon representative for the group. Please visit their site for more information!

Rickreall, Oregon Ham Fest

W7UUU, Editor

Cigarette vending machine? Pachinko? Nah… just a giant wall-mount commercial tube tester from the past called a Tube Master—once hung on a drugstore wall

Need a tube? Got tubes to sell? This is your man! Call or text 503-999-2157—he's at ALL of the Northwest ham fests

"Hams of a certain age" will immediately know this machine… an Instructograph Morse trainer using paper tapes to play code at varying speed. This is the machine used at the FCC offices in all major US cities for General and Extra testing back in the day—I took my General in Seattle from one in 1975

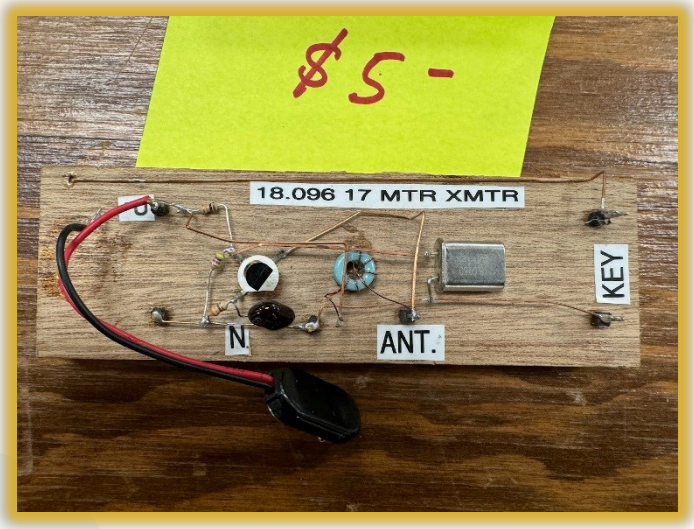
Many a Novice Ham got started with one of these receivers—the Heathkit AR-3 was the third incarnation of the design and the one that actually had the potential to make contacts vs. the prior releases of this receiver. The cabinet was not included—you had to pay extra to get it!

email loggersbark@gmail.com

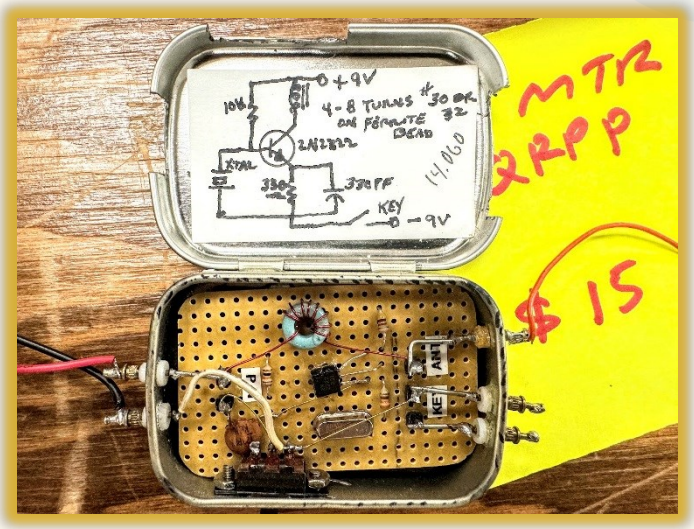
Rickreall, Oregon Ham Fest

W7UUU, Editor

Two iconic receivers—the Hallicrafters S-38 and the SX-140—both popular and both mediocre! The S-38 was general cover, the 140 ham only



Tiny QRPp transmitter for 17-meters on a wooden board… really cool breadboarding!



Another fun QRPp transmitter in an Altoids tin—CW only on 14.060
This seller had many of these QRPp projects for sale and they're always fun to see

This one I still regret not buying but alas, I just can't bring boat anchors home anymore. FULLY restored WWII BC-348 and truly iconic as a Novice receiver of the "olden days" - I'd have loved to pair this with a homebrew MOPA transmitter for some late night CW QSOs…. But *had to pass*

Photos by Dave W7UUU except as noted

Rickreall, Oregon Ham Fest

W7UUU, Editor

Former W7DK Member Spotted!

I was walking by a booth, and this gentleman spotted my RCT W7DK hat and said "Hey I used to be a member of your club back when I lived in Tacoma!" So I got to meet Mark Gaunt, KG7CX, Radio Club of Tacoma **member #652** who now lives in Vancouver, WA but remembers the club fondly! Mark—if you're ever back in Tacoma, by all means stop by any Saturday from 10 to 2 and we'd be happy to meet you again back in the RCT Clubhouse!!

Very rare bird, this! It's an Icom DV-21 digital VFO for the crystal-controlled IC-21A 2m rig. I looked for one for *years*—this is the first I've ever seen but alas, long ago sold the IC-21A

The transmitter that launched Heathkit into ham radio big time—the poorly-performing AT-1 came out in 1953 but sold like hotcakes to the new Novice class licensees. Had Heath never made this, they likely would have been a very different company.
Full write-up in the February '24 Bark page 52

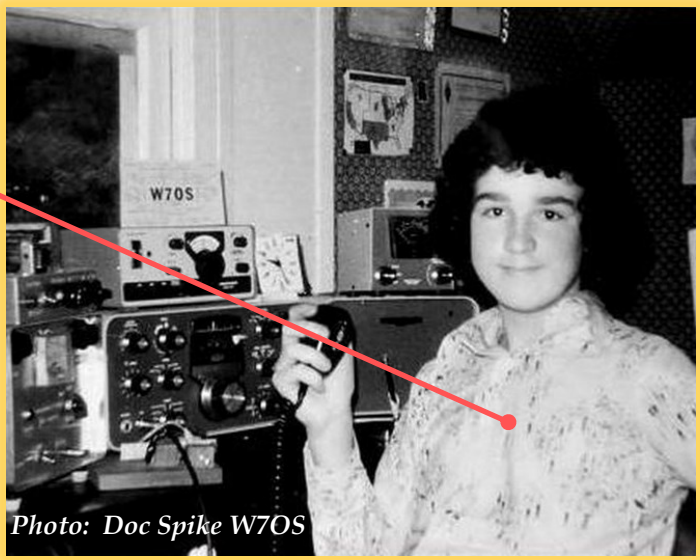
Rickreall, Oregon

W7UUU, Editor

W7DK Club Members then and Now!

Dave #743 W7UUU on left
Jim #614 W7LS on right
At the Rickreall, OR Hamfest
February 17, 2024

Jim age 17 around 1971
Call sign then: WA7KTD



Dave age 14 August of 1975
Call sign then: WB7AWK

Jim driving his 1965 British Abbot FV433 "tank" (self-propelled 105mm Field artillery vehicle)

email loggersbark@gmail.com

EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics

By Doug, AB7DG

IN EARLY JANUARY 2024, President Mike W7XTZ appointed me as Chair of the club's Emergency Communications (EmComm) Committee. This brief article is to introduce myself and explain my vision for that committee.

First, a little about me. As a youth I was active in Explorer Search and Rescue, then for three decades a volunteer ski patroller at Crystal Mountain. In 2011 I took a Community Emergency Response Team (CERT) class from Tacoma Fire Dept. In early 2019, that CERT organization hosted this club's weekend class to become an amateur radio licensee. I attended, passed my tech and general tests, and joined the radio club. By mid-2020, I was an amateur extra with AB7DG as my call sign. And that fall I was elected to the club's Board of Directors, where I continue to serve. Some club leaders thought my background as a business lawyer would be helpful in some board matters. Incidentally, my QTH is a short walk from the clubhouse.

When I got licensed in early 2019, I also joined Pierce County Amateur Radio Emergency Services (PC ARES), and soon became very active in that organization. Presently, I staff the County's emergency operations center (EOC) radio room for our ARES exercises, am one of the net control stations (NCS) operators for weekly nets, manage membership records for the roughly 300-member organization, and participate in meetings of the leaders of PC ARES. I was chosen as its volunteer of the year for 2023.

On to my vision for the club's EmComm Team. In early 2022 when I noticed that the club's bylaws include EmComm in its mission, I asked the PC ARES leader (District Emergency Coordinator, DEC) Stan Nelson, K7DKK, how best the radio club could contribute to emergency communications. He said the club should focus on handling welfare traffic for survivors in disaster events -- sending their well-being messages to distant relatives. While that mission is important, it is not addressed by ARES, whose mission is assisting local officials in disaster response. And in a major disaster we assume that normal cellular phone service will be unavailable to survivors for many days.

While disaster welfare traffic has long been handled by ARRL's National Traffic System and by Radio Relay International (RRI), new technologies largely have replaced voice/phone relay systems. And the American Red Cross no longer handles disaster welfare traffic. But the Winlink System (sometime called email via radio) is well-suited for handling disaster welfare traffic. And in the last year, I and several radio club member have participated with colleagues in Seattle to develop a system called "I Am Safe" that uses Winlink templates and trained radio operators to efficiently handle high volumes of welfare messages.

(Continued on page 67)

Got an EmComm story to tell? Send it in!

EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics

The system is very briefly described in QST Magazine's Feb. 2024 issue (p. 66-67), and more fully described at the RRI I AM SAFE PROGRAM website. What this system entails are trained individuals at evacuation shelters or other locations (e.g., colleges) with survivors using input forms [*see next page –ed.*] to collect welfare message data, inputting that data to Winlink templates on a laptop and generating small data files, delivering the batched data files either by radio or runner to an HF radio station with emergency power (the clubhouse or some other station) at which a trained operator will use Winlink and Vara HF or PACTOR to send the batched data files to a willing operator beyond the disaster zone, who will then import the separate data files into Winlink templates and transmit them to the survivors' relatives. Those relatives will receive the "I am safe" message ether as a cell phone text message, an email message, or direct contact from a RRI volunteer, depending upon what address data the survivor provided.

So to implement such a welfare message handling system locally, we'll need to train club volunteers (1) to use Winlink to input and process message data from survivors at shelters or elsewhere, and (2) to transmit those data files (possibly using HTs or mobile rigs and a peer-to-peer VHF/UHF Winlink mode) to an HF-capable Winlink station with emergency power. We'll need to identify HF-capable Winlink stations and train their operators to handle batched data files received from shelters and to transmit them by Winlink and Vara HF or PACTOR to designated distant Winlink operators. And we'll need to identify distant Winlink operators who are trained and willing to receive the welfare messages, un-batch them, and route them using Winlink back to the internet. All these things are achievable, but considerable training and testing capabilities will be required.

If you are interested in being part of the club's EmComm Team, please let me know.

-Doug Shafer, AB7DG

Short Texts for Welfare Messages

Insert one or two of these standard texts into the message by by clicking on message to insert.
All inserted messages will be added to the end of the current text.

27	I am safe and well.
28	Household safe and well.
29	Currently at shelter.
30	Currently at home.
31	Currently at family/friend's house.
32	Currently at a hotel.
33	Safe but moving to a safer location.
34	Evacuating to a shelter.
35	Evacuating to a family member/friend's house.
36	Evacuating and safe.
37	At home and plan to remain here.
38	Will contact you when able.
39	All communications are down.
40	Share this message with others

Examples of standardized Short Text messages

Got an EmComm story to tell? Send it in!

email loggersbark@gmail.com

EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics

RRI Quick Welfare Message Vers 2.3.2

This form is used to send information or a status report to family members or friends.
Suggest more than one E-Mail address to increase the chances that someone will get this message.

>> NO REPLY is expected, nor can one be processed. The requester needs to be informed this is a ONE WAY outbound message. <<

Operator Info - Read Please

Load Quick Welfare Data

From Name Survivor Sally Date / Time (Local) 2024-2-15 12:53

To Email (s) Mother@home.com;8089091234@vzwpix.com;

Add a Cell phone number: 8089091234 Verizon (MMS) Click to Enter Cell Number and Text Address in To Line

Incident / Event Location or Region / Area Name Western WA earthquake

Message Charcter count: 48 *Click here to insert short prepared messages*

I survived without injury, but home is damaged. Evacuating to a family member/friends house. Will contact you when able. Share this message with others.

Submit Save Quick Welfare Data Email Quick Welfare Message Reset Form

The message is formatted as plain text in the body of the sent email, and easy to read by the recipient (s).
For questions, comments or suggestions about this form contact KB1TCE via Winlink.

Quick Welfare Message entry form

WINLINK Global Radio Email®

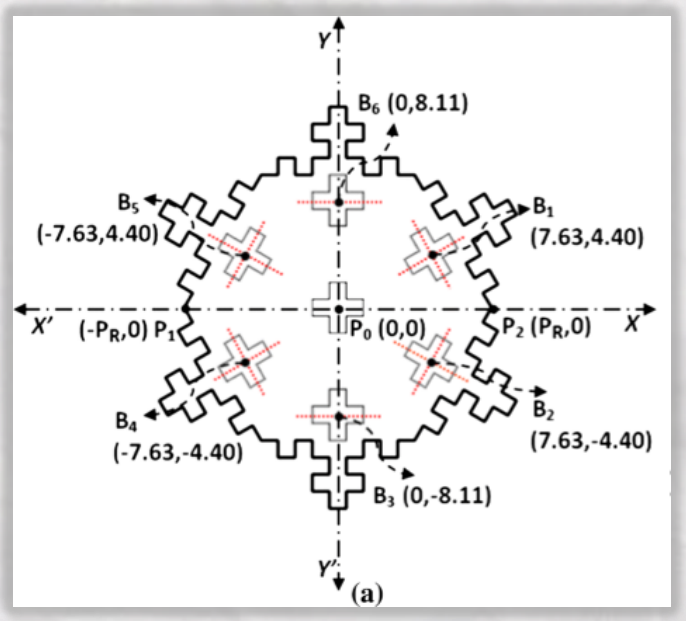
Got an EmComm story to tell? Send it in!

STRAY TOPICS OF INTEREST

Fun stuff for Hams to read!

W7UUU

At the peak of its popularity, the Heath Company of Benton Harbor, MI was not only the largest employer in the county (Berrien) but even had its own zip code!



If you use a modern cell phone of any brand, inside you would find an amazing piece of tech called a "Fractal Antenna". Modern personal communications can't work without them. And they were invented by a ham, Chip Cohen W1YW

On January 20, 2024 the Maritime Historical Society in San Francisco, from station Coast Radio Station KPH in Inverness, California, transmitted a coded message consisting of 5-digit character groups. All KPH listeners that evening tried their hand at decoding the 'Numbers Station' message, and those who were successful were awarded this handsome certificate. Congrats to the operators of the W7OS Antique Radio Museum station: Quentin K7DRQ, Dan KD7SV and Randy WB4SPB… great job operators!

Below: *"Cypress Tree Tunnel" Driveway leading to the KPH Station house in Inverness, CA which was built in 1930 for use by RCA Communications under auspices of the US National Park Service. Click photo to visit the KPH Radio Station website.*

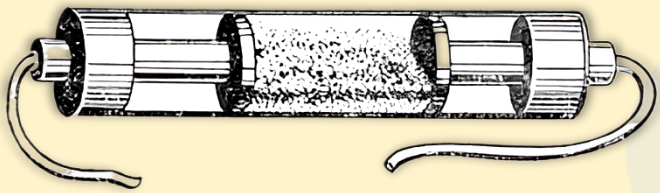
STRAY TOPICS OF INTEREST

Fun stuff for Hams to read!

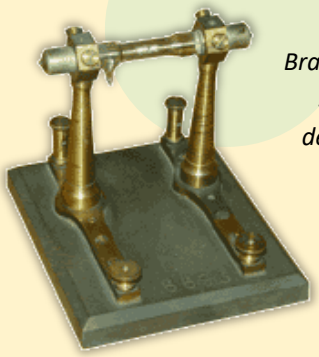
W7UUU

Are *you* coherent?

The

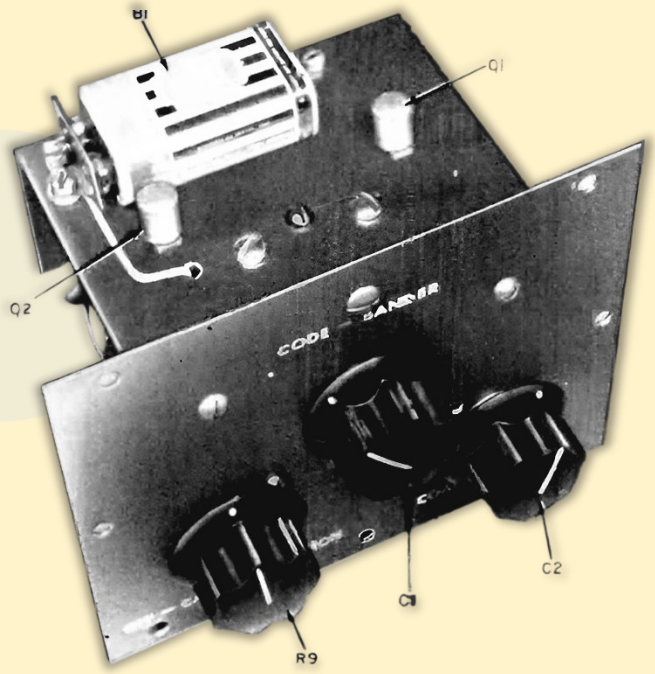


The earliest receiver detector could not detect *static!* It was called a Coherer and was purely an on-or-off switch. The device consisted of a small glass tube with metal-plug electrodes on each end. Inside was a mix of metal filings—usually silver and nickel. When connected to an antenna, a detected electromagnetic "radio wave" would cause the particles to clump together, or "cohere", and allow a current to pass between the electrodes. This current would then cause an electromechanical stylus to make a mark on a strip of paper. Long mark for a dash, as the coherer held longer, and short mark for a dot. A special tiny hammer of sorts, called a de-coherer, gently tapped the tube after each character to free the filings and be ready for the next. Therefore, there were only two states: on or off, but no possibility of "static" at all. This will be a topic for a full-blown article in an upcoming edition of the Logger's Bark. ■ -editor

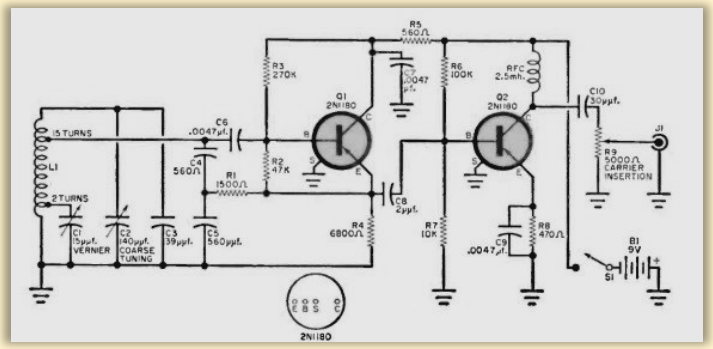


Branly Coherer, 1890, one of many styles and brands of coherer detectors from the very earliest days of radio technology

SparkMuseum.com



Popular Electronics Magazine, in the August 1963 issue, provided a schematic and plans to build an external outboard BFO (Beat Frequency Oscillator) they called the "Code Bander". It was a 2-transistor circuit and would allow any AM shortwave receiver to receive CW and to some extent, SSB signals. Unlike most BFOs, the unit didn't use the receiver IF but rather covered the 80m band exclusively but could also work on higher bands via harmonics. –*ed.*



STRAY TOPICS OF INTEREST

Fun stuff for Hams to read!

W7UUU

Hidden Word Contest!

Somewhere in this edition of the Logger's Bark is a hidden word. If you are the first to find that word and report it to your Editor, you will win a free QRZ Sticker mailed to you! **This month's word is a BRAND OF CAR** It will be hiding in a sentence—just tell your editor via email what the word is and the page and you will win if you are the first!

QSL Card of the Month!

Tristan da Cunha is #61 on the ClubLog "most wanted" DX list. Located in a remote location of the South Atlantic, it's the most remote archipelago in the world, at 1732 miles from the nearest large city, Cape Town South Africa. QSL is from W7UUU for a QSO with the DXpedition on 17m and 40m FT8 on October 14th 2023

Do YOU have an interesting QSL? Send it in!

ZD9W Tristan da Cunha operating desk

Did you know?

The uninhabited islands were first recorded as sighted in 1506 by Portuguese explorer Tristão da Cunha, though rough seas prevented a landing. He named the main island after himself, *Ilha de Tristão da Cunha.* It was later anglicized from its earliest mention on British Admiralty charts to Tristan da Cunha Island. Some sources state that the Portuguese made the first landing in 1520, when the *Lás Rafael* captained by Ruy Vaz Pereira called at Tristan for water

Current population (2023 estimate) stands at 238. English is the native language of the island, and Tristan da Cunha is considered to be the smallest and most isolated native-speaker community of English.

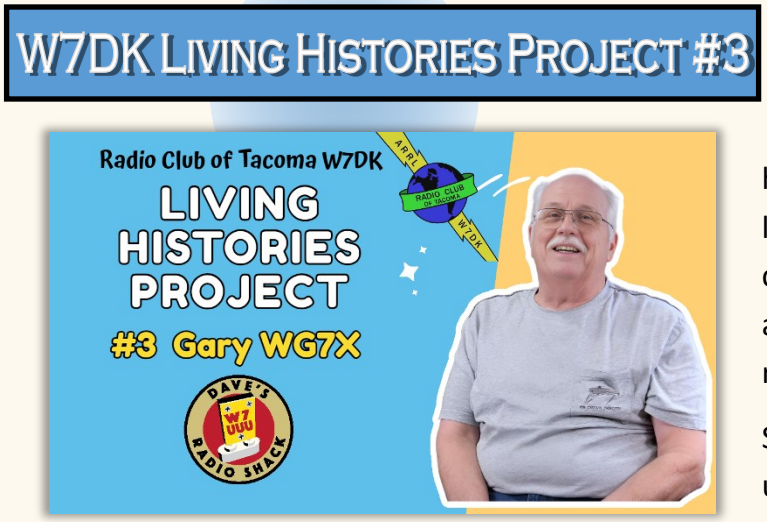
W7DK LIVING HISTORIES

Member video interviews and profiles

BACK IN 2015, when I was helping to organize the W7DK Centennial Banquet and Celebration, I asked about possibly recording video interviews of club members for future generations to learn more about those that came before them. However, that plan like so many things in life, sort of slipped by the wayside and I truly regret not revisiting such a project much sooner.

The fairly recent loss of our most senior member, Worth Gurley, W7WG, a true friend to all who knew him and to strangers alike, reminded me of the extreme importance of capturing aspects of our members lives and involvements not in only ham radio, but also with the Radio Club of Tacoma. So I've finally got that "round TUIT" that I should have found sooner and have embarked on recording what I am calling the W7DK Living Histories Project. For this effort I video a short (15-20 minute) interview with our members in a free-form format to allow them to share some insights into how they came to amateur radio, and how they became involved with the Radio Club of Tacoma.

So far I have produced a small number of these videos but it's an ongoing process, and I hope to continue until all members who wish to participate have had a chance to do so.



Click picture to watch the video

One of the challenges of any such project is where to store the data that is the encoding result of all the video that is produced and edited. If stored on a local computer such as at home it is subject to the failures we all know can happen: fire, electronic failure, physical loss (where did I put that hard drive?) or other calamities. Storing at the clubhouse doesn't fare any better in the long run.

So the videos are being uploaded to YouTube, where they have a strong chance of remaining there for a great many years to come. Several are already uploaded, with several more in editing and more on top of that slated to shoot. Oldsmobile.

I hope to record such histories of ALL members who wish to tell their stores—please contact me if you would like to participate.

Please enjoy this series of videos, with a new link every month. Click the image to watch video ■

AMATEUR RADIO STATION VE3JW, sponsored by the OVMRC officially opened on March 19, 1974. The call sign is still in use at the station and was originally issued to Jim W. Cotter (SK) of Ottawa.

Station VE3JW is dedicated to his memory and to the many Amateur Radio operators who pioneered in radio communications. In view of the fact that the station is dedicated to the early pioneers, the original 10" spark coils and hand sending key from the Voice of Atlantic Seaboard (VAS) was used during the opening ceremony. VAS was the first Canadian radiotelegraph station capable of transmitting commercial trans-Atlantic messages and commenced operation in the early 1900's. Mr. Cotter's nine year old granddaughter, Jayne Arbuckle, pressed the hand sending key to create the spark to officially open the station .

The original station equipment in '74 was all Heathkits. A 30' tower with a Mosley three element tri-band beam was assembled by members and installed on the roof. The objective of the station and the many volunteers currently operating the station is still the same. We are here to demonstrate to you, the general public, modern Amateur radio communications and to answer your questions on the many fascinating facets of Amateur radio. [*Compiled from web –editor*]

TNT THE NEW HOT THING

Hot and new products to think about

W7UUU

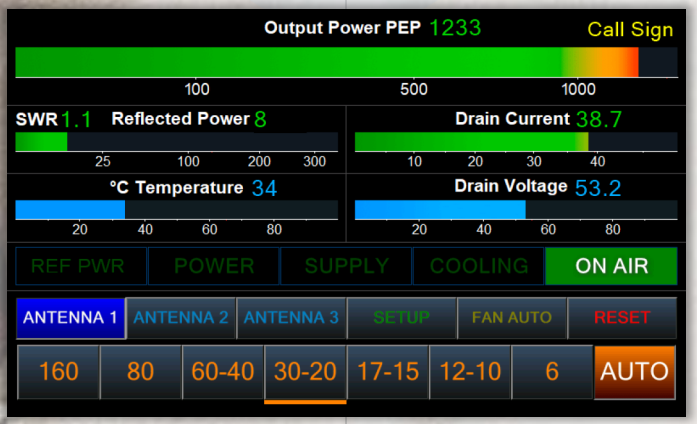
THIS MONTH'S HOT NEW THING isn't really new at all but it's something new to the Radio Club of Tacoma, and soon to be installed in the HF room as what will be to our club a truly "New Hot Thing". It's the renowned Mercury IIIS HF and 6m 1200 watt linear amplifier.

The amp came to RCT as a part of an estate donation, and was sent to the Mercury service center for a freshening up before being installed in our club station.

Mercury IIIS Amplifier

The Mercury III is a solid state HF amplifier that uses a single LDMOS (planar double-diffused MOSFET device—think "really honkin' huge power transistor"). It offers fully automatic operation (i.e., no tuning = far less likely for a new user to cause damage from improper tune-up), and with a mere 50 to 80 watts input power (depending on the ALC setting) will run nearly full-legal-limit power of 1200 watts on SSB and CW (700 watts on RTTY or other 100% duty-cycle digital modes)

The automatic operation is derived from RF sensing—the instant the transmitter is keyed, the amplifier knows what frequency is in use and changes the tuning characteristics to match in the blink of an eye. It offers really robust SWR protection as well, should someone accidentally have the wrong antenna selected. On the rear panel there is provision for up to 3 antennas to be connected which can be front panel selected, although the club will likely keep using the current patch panel system to add one more layer of protection from choosing the wrong antenna for the band selected.



7″ Touch Screen

The front panel is fitted with a 7-inch color touch screen for making system selections and changing settings. It's a very simple and straightforward control system that should be very easy to operate.

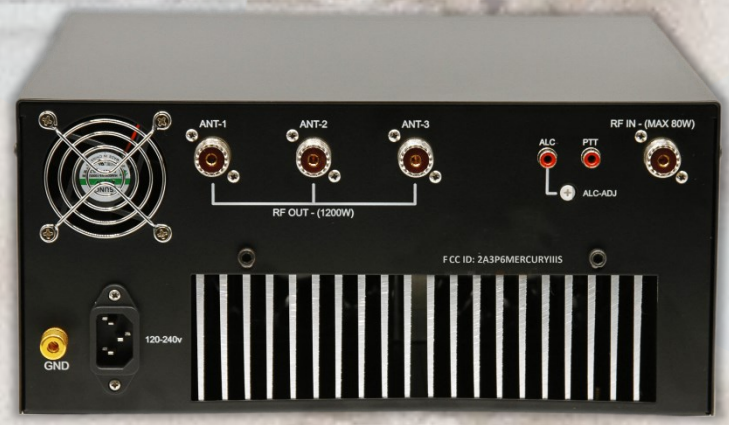
One of the unusual aspects of the Mercury IIIS is that it's essentially manufactured under the control of a single individual, Kenny Martinez KM3KM, of Miami Florida. The product was initially offered as a kit, and took off like crazy right from the start. However, about a year ago, due to kit builder errors

Click to visit the Manufacturer's Site

TNT THE NEW HOT THING

Hot and new products to think about

W7UUU



Mercury IIIS Amplifier rear panel

and the need for factory repairs, Martinez stopped offering the amplifier as a kit. So they are now sold only as factory assembled, with a list price of around $2800 not including the optional autotuner that can be added to the system.

Reviews for this amplifier are universally outstanding, rating almost a perfect 5 stars with 81 reviews on eHam.com. Customer service and support has been reported as superb, and other than some quibbling complaints here and there about features that some hams would prefer changed, there's practically nothing negative to be said.

For those in the club wishing to read more about this fabulous amplifier before it's installed at the club (assuming that's the case at time of publication), you can download the full User Manual here. This should be a great upgrade for the Mighty DK station in lieu of the 50 year old tube operated amplifiers that have been in use up until now.

■ *-editor*

So let's talk about Mercury! It's the first planet from the sun, and is named after the Roman God *Mercurius* or Mercury (the statue guy in the background on this page). He was the god of commerce and communication… get it? A ham radio amplifier to help hams have a really big signal, while at the same time involving commerce! Kenny at Mercury Amplifiers I betcha had that all in mind when he named his new amplifier product a few years ago.

The planet version though is HOT. Like crazy hot… except at night when it's crazy cold. While cozy in bed on a Mercurial night, you'd be sleeping in something around minus 270 Fahrenheit temps, then somewhere around Mercurial dawn for about a minute or so have a decent normal temperature before hitting 790 degrees Fahrenheit during your afternoons there!! That's the big problem of being A) way out in space and B) being so darned close to the sun. No matter how you slice it, not a fun or friendly place to visit much less start a family.

■ *-editor*

SURELY ONE of the most iconic of all pieces of amateur radio nostalgia must be the Ameco AC-1 Novice CW transmitter. Ameco Equipment Corp. was a minor manufacturer of amateur radio equipment in the 1950s, with offices and a small factory located in The Bronx, New York City. By the early 1960s they relocated to a slightly larger building on Long Island. Most noted for their series of code and theory educational and testing materials, they also produced a small number of electronic product offerings for radio amateurs. Likely their biggest sellers were the several iterations and variations of a code practice oscillator. Originally tube-based, they were ultimately redesigned to be solid state. Most Ameco products were offered both in kit as well as assembled form.

Ameco AC-1 Replica kit built by Dave W7UUU

But despite the range of products Ameco made and sold, perhaps the one most remembered by hams who were licensed in the early 1960s into the 1970s, is the venerable AC-1 transmitter. What new Novice operator didn't drool over the sleek little chassis, with no cabinet, just open tubes right on the top and sleek shiny "Chickenhead knobs" on the front apron for tuning and loading?

First offered in 1959, the AC-1 sold for $16.95 in kit form, but the tubes would set you back another $2.13! I presume the assumption was many hams wanting such a transmitter likely had a junk box stocked with tubes so no need to pay for more. But even at $16.95, and using your own tubes (6V6 oscillator and 6X5 rectifier) it wasn't that cheap… roughly the equivalent to $175 in today's inflated dollars. The kit included a single coil form which could be wound for 80 or 40 meters, and there was enough wire for either coil to be made. For another 86 cents you could get a second coil form and have both coils on hand.

The transmitter was extremely basic, using just a single 6V6 oscillator tube (the 6X5 was simply the rectifier for the power supply). The original AC-1 featured a choke-input power supply but subsequent reproduction kits have done away with that due to the high cost of power supply chokes, and instead feature a capacitor input.

The ad copy is pretty funny to read today – claiming in all caps, "NO ANTENNA TUNER IS NECESSARY" since the expectation was the user would be using a high-impedance random wire antenna. But any form of low impedance feedline would be another story altogether. The ad also boasts that the transmitter includes "TVI *[television interference]* Suppression"… except there is really nothing in the schematic to suggest that. It's simply a Pi-tank output oscillator with

no low-pass filter other than the tank itself. The only mention of TVI protection in the assembly and operation manual is to make sure the transmitter chassis is grounded. But interestingly, Ameco also sold an external TVI filter that could be purchased separately. Maybe they originally intended to include this with the kit but changed their minds to help keep the cost down. Lastly, the ad states the transmitter is "chirp free" which as anyone who has ever used an Ameco AC-1 can tell you, it's as much if not more prone to chirp than just about any other transmitter of its type at the time.

Construction was straightforward, although there are no illustrations like in a Heathkit manual. But it was a better manual than many kits of the era.

Note there is no provision for monitoring the tuning & loading. The operation manual suggests using a light bulb dummy load to set the controls for maximum brightness, then presumably to swap out the antenna and hope it works! They also suggest inserting a 100mA meter in series with the key to measure cathode current, which would be a far better method albeit raise the cost even more. Of course, reproduction kits made in the modern era we can simply tune for maximum output using any number of SWR/wattmeter devices found in a typical ham shack today.

Ameco must have sold a great many of these transmitter kits, and I recall as a teenage ham in the mid-1970s seeing them at ham fests all the time for a dollar or two. I probably owned at least two of them at one time here. Fun rig!

NEW AMECO TRANSMITTER

- Pi-network Output circuit
- Includes Heavy-duty AC power supply
- 6V6 Oscillator and 6X5 Rectifier
- 15 watts input
- For 40 and 80 meters CW
- Crystal controlled
- Attractive grey hammertone finish with white lettering and red knobs
- Simple and Educational building instructions

in kit form only $16.95*

The new AMECO transmitter kit is an ideal unit for the beginner or novice who requires a reliable transmitter. It is a high quality rig containing a heavy-duty transformer-choke power supply. It has a Pi-section output circuit to work into any random length of antenna wire. NO ANTENNA TUNER IS NECESSARY. Keying is clean and chirp-free. TVI suppression features have been included in unit. Kit is low in cost, simple to build, and easy to operate. Units are complete with punched chassis, hardware and instructions.

* Model AC-1 with coil kit for any 1 band, less tubes and crystal..... $16.95

Extra coil kit CK-1..... .50

Set of tubes for above (6V6 & 6X5)..... 2.13

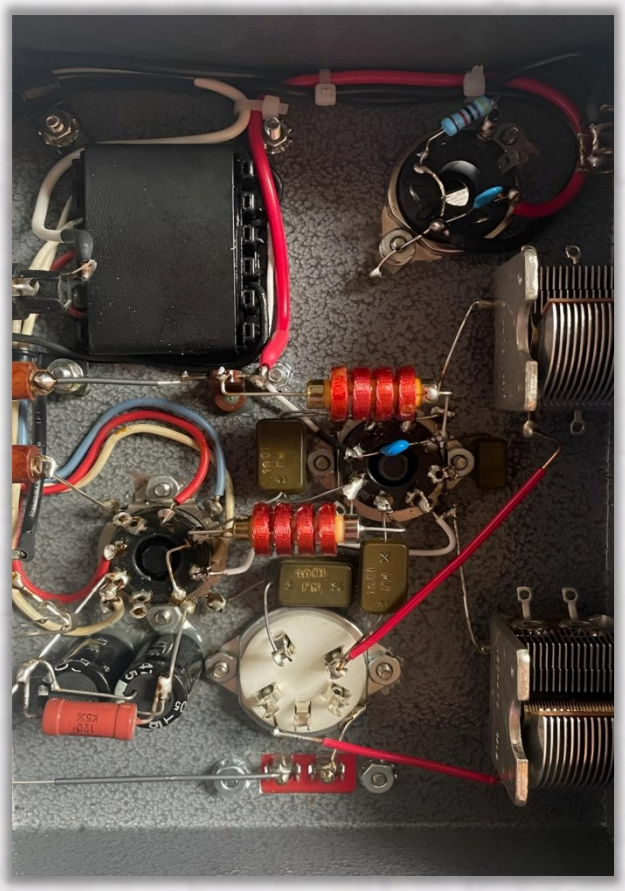
1959 Print ad for Ameco ac-1 Transmitter

(continued next page)

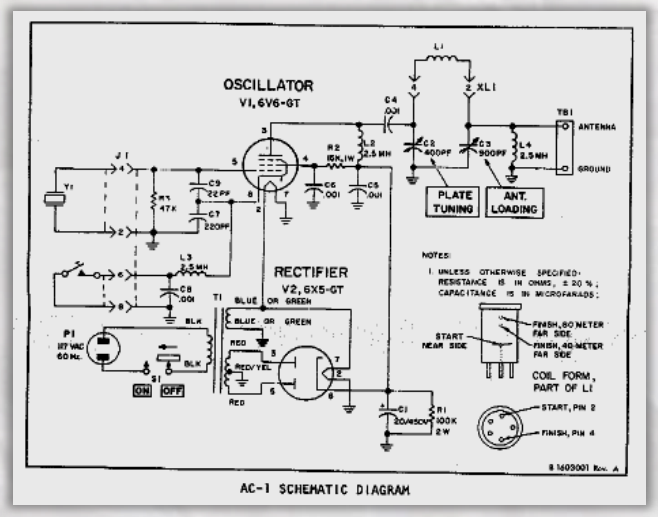
But as with all things involving nostalgia, ham radio is no different and hams began collecting these iconic old transmitters starting 40 years ago or so. Prices have been driven to the stratosphere, with original unmolested units selling for as much as $500 on eBay and junkers for half that. Prices were even edging up before the days of the internet. At the time of this writing there is an original AC-1 listed on eBay for $300 plus $29 in shipping cost, still sporting all the original capacitors that will surely need to be replaced, and it has a couple chassis modifications on top of that.

To feed the nostalgic buyers, the first round of replica kits appeared in the mid-1980s, which were complete copies of the original in every way, since most of the same parts could still be had for reasonable prices.

But these days, the majority of the components are as rare as finding an unmodified original AC-1 and the current crop of reproductions are rather different, with a no-choke power supply for lower cost, an actual FT-243 crystal socket instead of just a tube socket for holding crystals, and an SO-239 antenna connector. Coils can be wound for most HF bands, although 40m is likely the highest you'd want to go. There are a couple of regular vendors selling these kits, with many of the parts sourced from former Soviet states where many NOS parts can still be found. The one I built was roughly $225 a couple of years ago. But be prepared to pay as high as $300 for your nostalgia fix these days—and have fun finding crystals, especially ones that don't chirp! ■ *-editor*



Underside of chassis



Original schematic of the AC-1

HOMEBREW & KITS CORNER

Radio homebrew projects both large & small

Dave W7UUU

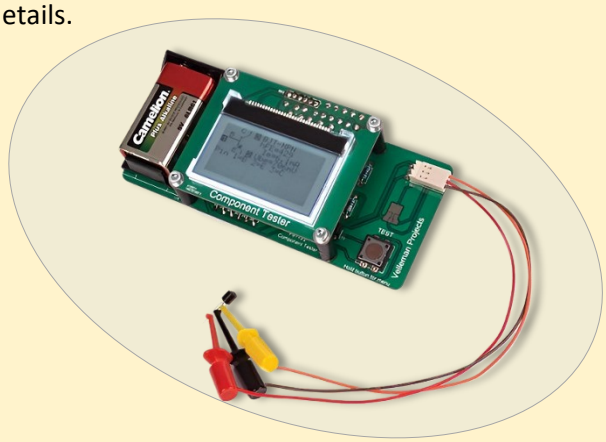
Project BUILD

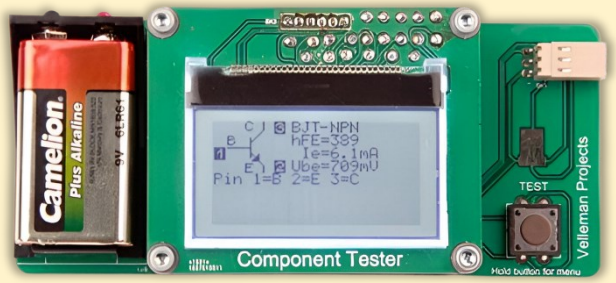
$59.95

component tester kit

While far from unique in the electronics world, this little gizmo is the only one of its type I'm aware of that's offered in kit form. What is it? A magical little device that through electronic and programming wizardry figures out what sort of electronic part is being evaluated, and tell you all about it!

In other words, if you have some unknown mystery part on the bench, all you do is clip the test leads to it—two leads for a device with two wires, three leads for ones with three. You don't need to know which lead to clip where—that's the magic! The device analyzes the component first as to type (resistor, capacitor, diode, inductor, or transistor) then gives you a plain-English readout on the screen telling you all about it: type of device, value of device, and any other relevant parameters such as hFE or current gain of a transistor and other useful details.





Velleman WSNMI8115 Component Tester Kit
Click image to visit the Jameco website

Below is a full list of the devices it can identify and test…. This device is listed as a "Beginner level" kit so will be very easy to construct. At $59.95 from Jameco Electronics (a long-time trusted supplier of electronics parts and kits), it's IMO a pretty good deal for all that it does.

Click the YouTube logo to the right to view a 12-minute video detailing construction and operation of this device

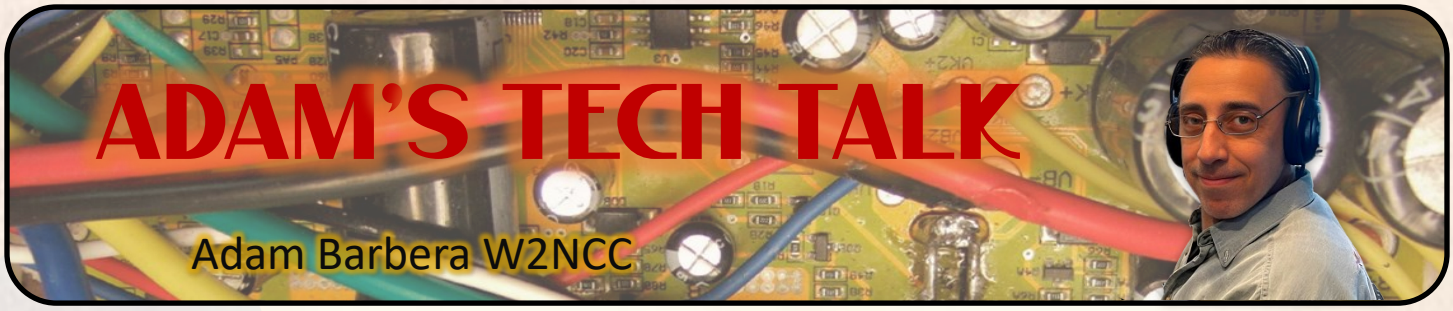
Supported components:

- BJT
- JFET
- E-IGBT
- D-IGBT
- E-MOS
- D-MOS
- Resistors
- Coils
- Capacitors
- Diodes

■ *-editor*

Do YOU have a homebrew to share?

email loggersbark@gmail.com



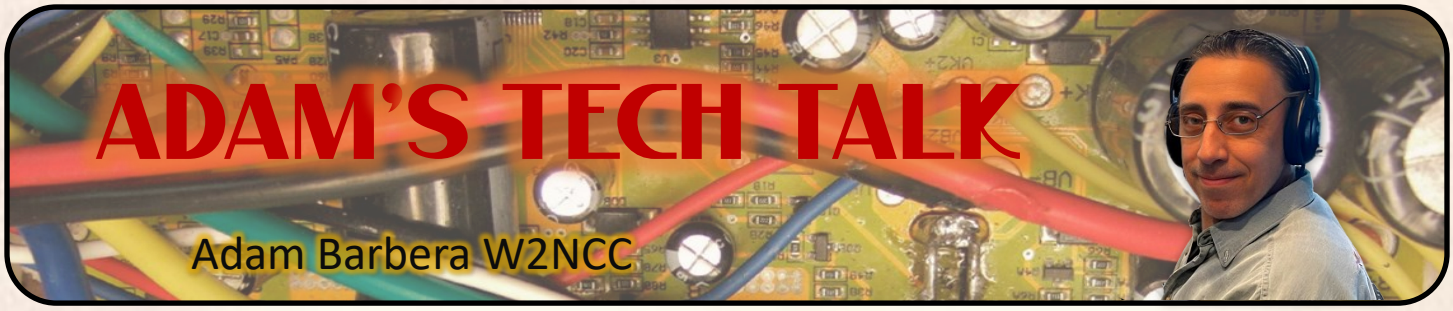
STANDARDIZING BATTERIES **for day-to-day emergencies**

In case of an emergency, it is a good idea to have your flashlights use the same voltage and type of battery. It makes it easier to replace them when they fail, and reduces the chances of confusion. If you have multiple flashlights that use different types of batteries, it can be difficult to keep track of which batteries are needed for each flashlight. This can cause delays when trying to replace batteries in an emergency situation. By using the same type of battery in all of your flashlights, you can simplify the process of replacing batteries and ensure that you always have the right type on hand when you need it.

Storing and managing batteries long-term is tricky. Even under the best of conditions, after a few years, D-cell batteries leak. Once a battery starts leaking it can no longer be used and needs to be recycled. In the past, every year I would buy D, C, AA and AAA batteries for all of my flashlights. I would guess how many batteries I would need in a year and make a single bulk buy for the best price. During the year, using the oldest first, I would attempt to cycle through the older batteries. In case of an emergency, I would make sure there was a surplus of each cell type on hand. Most years I would buy too many for my needs. The older batteries would not be used fast enough and after a few years would begin to leak. This can be very frustrating and expensive.

Then considering my amateur radio battery needs, for portable radio operations and emergency communications I use my Kenwood TS-50 with a matching autotuner. To power the radio, two Talentcell 12v LiFePO4 battery packs are used. So, in all, considering all types of cells needed on hand, I was storing and managing D, C, AA, AAA and 12v LiFePO4 batteries. That's 5 different types of batteries for all the different lanterns, flashlights, portable and emergency communications equipment. That's a lot to manage.

To solve this problem, one idea is to use your cordless tool batteries as a source to power lanterns, flashlights, and other equipment. This can be done for everyday needs around the house or for camping and is also good practice for emergency preparedness. There are many accessories for cordless



tool batteries including 120v inverters, DC buck converters, and light sources that can be attached to your tool battery.

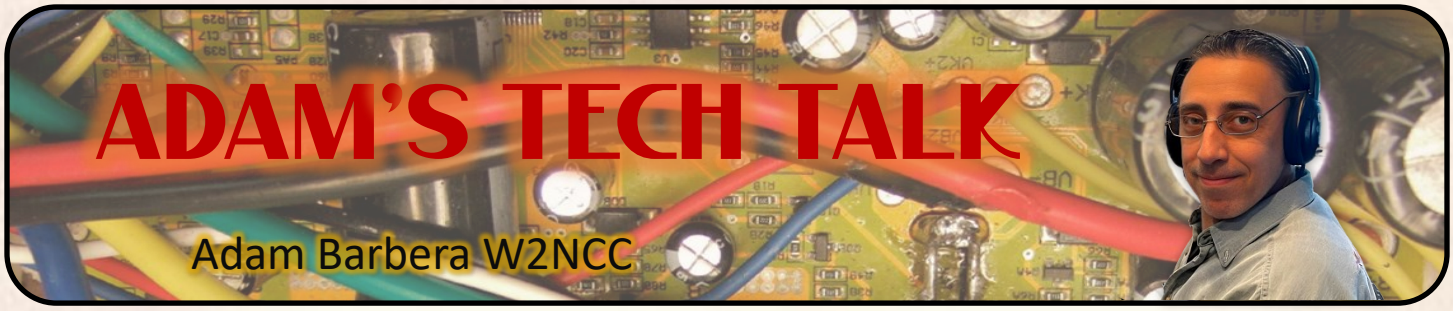
For example, the Milwaukee cordless tool M18 and M12 batteries have several advantages over a common D-cell battery. First off, the battery is rechargeable and can be used multiple times, whereas a D-cell battery will go bad after a few years (at most) and will need to be replaced. Second, the cordless tool battery is compatible with a wide range of power tools. The cordless tool batteries are now dual-purpose: powering not only your cordless tools and emergency communication equipment, but also lights, laptops, and radios.

Also, batteries can be used to power and charge other devices such as cellphones, tablets, and laptops. Third, the cordless tool battery is much more powerful than a D-cell battery and can provide longer run times. Lastly, the Milwaukee M18 & M12 battery system is more environmentally friendly than a D-cell as it can be recharged and reused, reducing the amount of waste generated.

All the major cordless manufacturers make lighting accessories for their product lines. As an example, the Milwaukee 49-24-0146 flashlight & 2362-20 area light are cordless LED work lights that are well -made and durable. These lights use the Milwaukee M12 battery. If you have Milwaukee tools that uses the M12, then it's a small additional investment to purchase the lighting pack because you can use your existing batteries and charger.

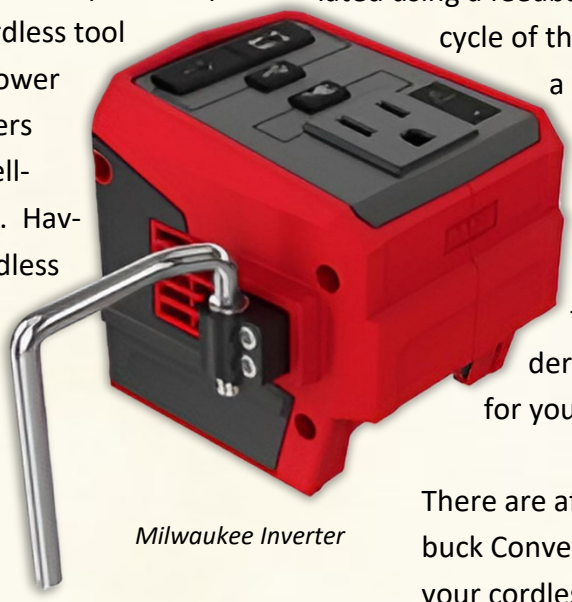
This is not a disposable flashlight from a grocery store, but quality equipment designed to last many years. It's an investment that takes advantage of your cordless power-tool batteries. The benefits are many: long-term savings realized, reliability factors, battery management greatly simplified, and cost-of-ownership reductions by standardizing on a single battery platform for all your needs… not just the cost of a flashlight.

Aftermarket accessories are usually sold by third-party manufacturers and not by the original tool brand. Most of the popular brands have aftermarket lights and flashlights that take advantage of the branded cordless tool batteries. An aftermarket light for a cordless tool battery is a light that can be attached to or powered by a battery that is compatible with your cordless tool brand. Aftermarket accessories can offer different features and functions not available from the manufacturer, and often at a relatively low cost than if they were made by the actual manufacturer.



An inverter is a device that converts DC from a battery into AC power that can be used to power 120 volt AC electronic devices. The inverter can be used to power a variety of devices including laptops, lights, monitors, and other small to medium-sized appliances that don't require too much wattage.

The inverter becomes a small portable power supply that can be attached to a cordless tool battery to provide continuous power or recharge devices with. Inverters are ideal for charging laptops, cellphones, and other small devices. Having an inverter that fits your cordless tool battery type is beneficial. All your cordless tool batteries of that type will fit, it will be lightweight and a compact design. This is ideal for camping or other activities where you need a power source. Milwaukee 2846 50 M18 inverter shown.

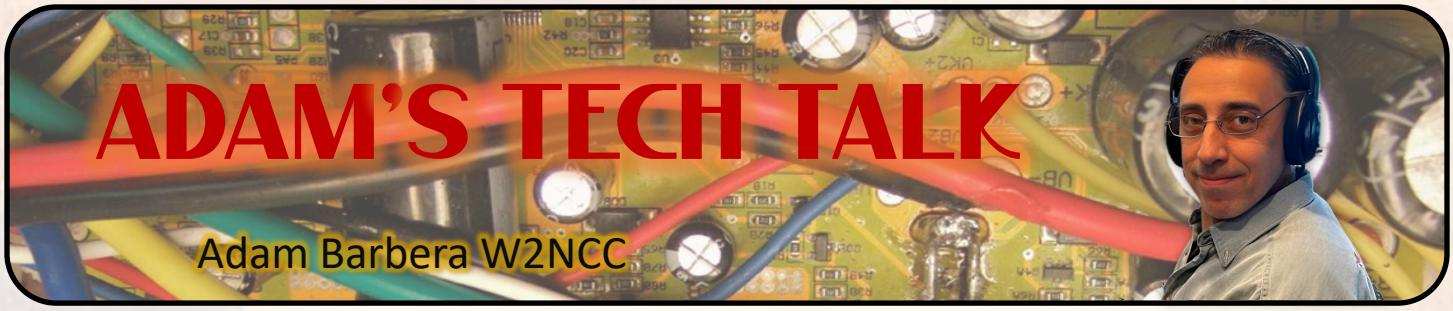


Milwaukee Inverter

But be warned that many cordless batteries are greater than 12 volts. Most of our radio equipment and accessories require a 12-volt power source. This means many of the cordless tool batteries cannot directly power 12-volt radio equipment. A DC buck converter is what is called a DC-to-DC converter, that provides an output voltage that is lower than its input voltage. It is a class of switched-mode power supply that uses a transistor switch circuit to rapidly switch the input voltage on and off, creating a square wave. The square wave is then passed through an inductor, which smooths out the waveform and filters out the high-frequency components. The output voltage is regulated using a feedback loop that adjusts the duty cycle of the transistor switch to maintain a constant output voltage. All of this means that you can use higher voltage batteries, if that's what you have on hand with your particular power tool family, and still be able to derive the required 12vdc needed for your emergency devices.

There are aftermarket products like DC buck Converter that are compatible with your cordless tool batteries. This approach can be applied to emergency communications (EmComm) and Parks on the Air (POTA) work.

SUMMARY:



The philosophy of having the same type of battery for flashlights is based on the idea of simplicity, efficiency, and reliability. By using the same type of battery, you can avoid the hassle of carrying and storing different kinds of batteries, finding the right one for your flashlight, and dealing with compatibility issues. You can extend the function of your cordless tool batteries by adding flashlights that can swap batteries between them, adding convenience and reducing waste.

Lithium-ion batteries are rechargeable batteries that have high energy density, low self-discharge, and no memory effect. These batteries are lightweight and have a long shelf life.

The philosophy of standardizing your batteries can be extended to leverage existing power sources in your home like cordless tool batteries. This makes them easier to manage because they are part of your current cordless tool brand. If you are invested in a cordless tools system you already have batteries and chargers so you're already halfway there. Adding accessories like flashlights and work lights is a low-cost investment that will expand your cordless tool capability. This will bring simplicity and efficiency to managing batteries. In case of an emergency, you will always have flashlight batteries at the ready.

Until next time—73!
Adam Barbera W2NCC

In 1800 Alessandro Volta invented the world's first battery (OK not including accounts of really primitive Babylonian examples that don't really count). The following year, after observing his Voltaic Pile, Napoleon made Volta a Count. Six decades later, French physicist Gaston Planté invented the first rechargeable battery. He wasn't named a Count for the feat, but he did leave an enduring legacy in battery history. Most folks know of Volta. Planté invented the first RECHARGEABLE battery, much like what is in your car today. Planté's design contained two electrodes, an anode (negative electrode) of lead and a cathode (positive electrode) of lead dioxide, separated by a rubber strip. The electrons lost by the anode through oxidation were conducted to the cathode by an electrolyte of sulfuric acid. From there, the electrons and their accompanying charge could be transferred externally to an electricity-hungry device such as a light bulb.

■ *-editor*

ANTENNA TIME

Notes, tips and projects

ARE ENDFED ANTENNAS

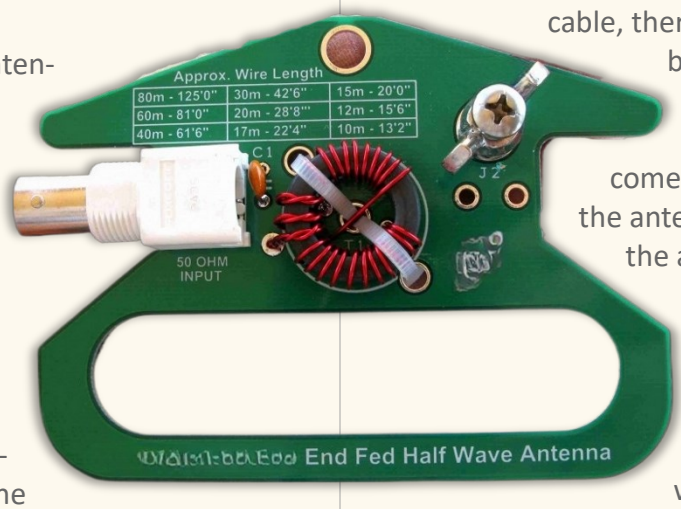
really miracle antennas?

By HF Kits

Anyone browsing the internet for experiences about end-fed antennas will come across a lot of information. Besides stories about fantastic DX connections and great reception reports, you can also find a lot of negative information. The truth will undoubtedly be somewhere in the middle, and this article will elaborate on this in detail.

Benefits

An advantage of end-fed antennas is of course their simplicity, especially for field-work this is a huge advantage. Put a telescopic mast against a pole, hook the antenna to the top and slide it out. You are on air within 5 minutes! An additional advantage is that the antenna can easily be polarized vertically. This makes the antenna convenient for (DX) long distance connections. Totally fantastic is the fact that the antenna is resonant at half a wavelength or a multiple of this wavelength. This makes the end-fed antenna perfect as a multi-band antenna. Just look at the following example: 20-meter wire is a half wavelength for the 40 meter band, two half wavelengths for the 20 meter band, four half wavelengths for the 10 meter band and 3 half wavelengths for the 15 meter band. Couldn't be better, you say!?



Disadvantages

So far only benefits, what's wrong with such an antenna? Unfortunately, there are very many cases known of people who suffer from a variety of interference when using end-fed antennas. Think EMI, restless reception, RF in the shack or all kinds of devices in the house that will lead a life of their own as soon as you get on air. There is only one clear reason for this and that is common mode current or imbalance in the supply line.

Imbalance… how?

In principle it does not matter whether you are working with open line, chicken ladder or coax cable, there is almost always an imbalance in the feed line with end-fed antennas. As a result, the feed line becomes an unintentional part of the antenna system, resulting in all the aforementioned problems. In the case of an end-fed antenna fed with open-line, only one wire at the end of the feed line is connected to the half wave antenna. The other wire of the transmission line therefore is unconnected. It may be clear that at the end of the loose wire no current runs. Where should that current run? At the end of the other wire, current still runs into the antenna, otherwise the radiator wouldn't do anything.

So at this point there is imbalance in the feed line. Now I can hear you thinking…. There is a voltage maximum at the end of the feedline and there is almost no current flow at this point, so does this matter? The minimum current difference at this

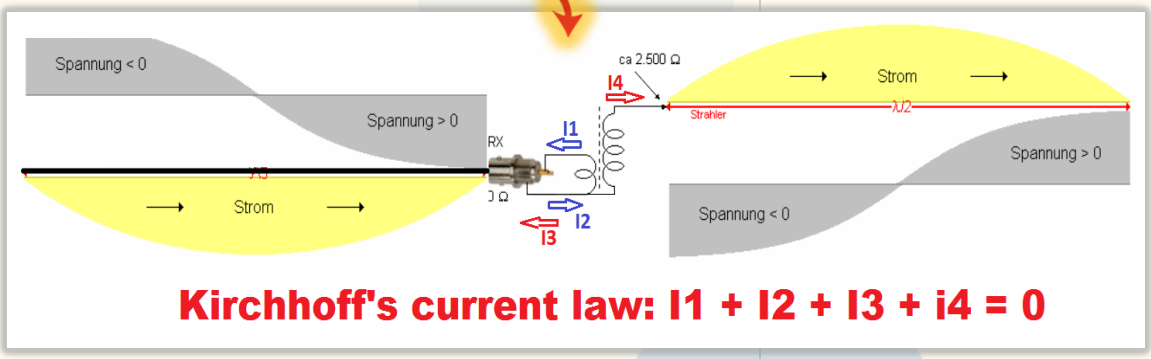
Do YOU have an Antenna project?

ANTENNA TIME

Notes, tips and projects

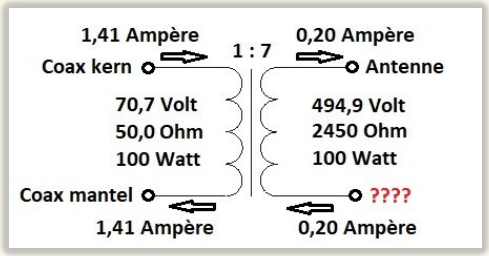
position of the feedline does not do much but is sufficient to create a significant difference in current a quarter of a wavelength further down the feedline. This imbalance in the feedline causes it to become part of the antenna, resulting in all the problems mentioned above.

But my end fed antenna is fed by coaxial cable?
End-fed antennas with an impedance transformer fed by coaxial cable probably don't suffer from this? Unfortunately, this makes no difference. In this case, the outside of the coaxial cable is used as an antenna. See image below.



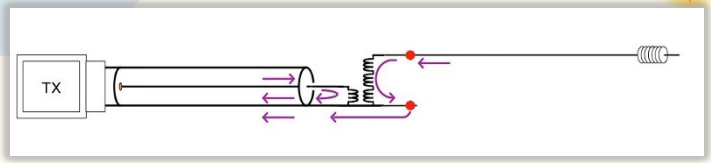
Common mode current in coaxial cable at end fed antenna (Source: Wolfgang Wippermann DG0SA)

To clarify this, a schematic representation of the impedance transformer has been drawn below. The (left) primary side is fed with coaxial cable. The voltages and currents are shown at 100-Watt power. On the primary side you can see that 1.41 Amps goes into the transformer. With a winding ratio of 1:7 this results in an output current of 200 milliamps at the secondary (right) side of the transformer. Now the top side of the secondary side is connected to the antenna, so 200 milliamps will run here. At the bottom of the secondary side of the transformer a proportional amount of current will flow. With the "end fed" antenna, this is coupled to the coax shield (bottom primary windings). In practice this current will run over the outside of the coaxial cable.



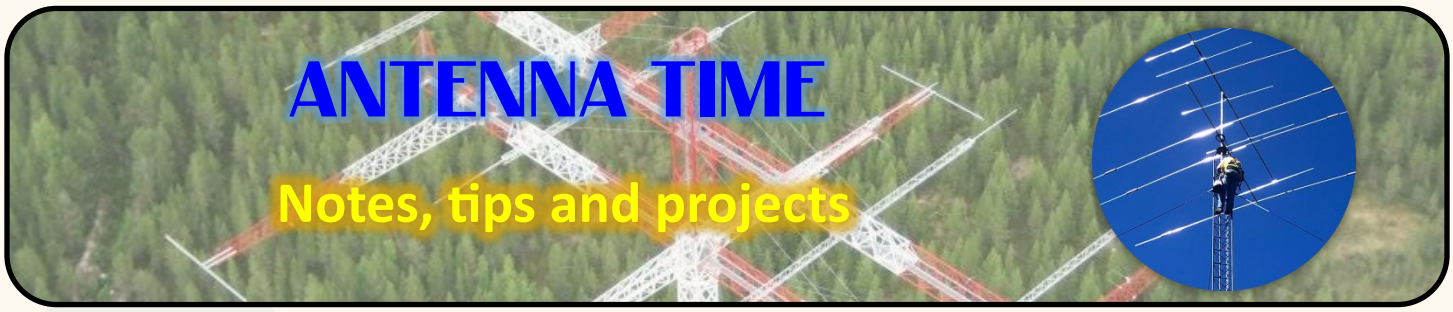
It may be hard for some (including me) to imagine a coaxial cable can be seen as a cable with three conductors. The center core, the inside of the shield and thirdly the outside of the shield.

If there is no common mode current, the currents in the center core and the (inner) shield are equal. If common mode current does flow, it will look like this:



Because the currents are not in balance, the coax cable will also radiate in this case. Unfortunately, this also applies to reception. So, the antenna has an increased chance of picking up all kinds of interference in the near vicinity of the coax cable.

Do YOU have an Antenna project?



Practical examples

When I switched from a dipole antenna to an End-Fed antenna my interference problems started. I heard my own voice through the PC speakers. The dipole probably had a 1:1 Balun which prevented common mode currents. The EndFed antenna does not have common mode current prevention, this causes RF in the shack through the outside of the coax cable.

After installing a common mode choke, the reception with my EndFed antenna was a lot quieter. It saves 3 S points! This can also be explained by the fact that the coax cable is part of the antenna. The feedline radiates when transmitting, but in case of imbalance it also works as a receiving antenna. All kinds of interfering signals in the house now radiate directly into the coax cable. Think also of the mains installation from which a lot of noise (Power Line Communication) comes nowadays.

The length of my coaxial cable affects the SWR. Because the coaxial cable serves as a counterpoise capacity, this is indeed the case.

Common mode choke

If you suffer from problems then use a good common mode choke. Do not place the choke directly near the antenna feed point because the filter will hardly work. Most filters promise fantastic attenuation but measured at an impedance of 50 Ohm. Since the impedance is very high near the supply point, the filter will hardly work. Ideally, the filter should be placed a quarter of a wavelength from the feed point. At this point, the impedance is low again, which will make the filter work optimally. With multiband antennas this point is of course different for each band. In this case, use an average. For example, 6.5 meters from the feed point at a 10, 20, 40 EndFed Antenna. The second choice would be 3.8 meters away from the feed point is also a good option.

Counterpoise

At EndFed antennas a certain current flows into the antenna, but according to “Kirchhoff’s current law” a proportional amount of current must flow somewhere else. Without a counterpoise this will be the outside of the coax cable. A good way to minimize this is to create a counter-capacity. (Counterpoise) In the case of the End Fed antenna, you can simply make an extra connection and connect it to the coaxial cable shield. The counterpoise can be anything, think of: a piece of wire, the zinc gutter, the antenna mast or a ground pin. I prefer the combination of a common mode choke and counterpoise because this way you force the antenna matching box to use the counter-capacitance instead of the coax cable.

Conclusion

Is the end fed antenna worthless or not? I absolutely don’t think the end fed antenna is worthless, otherwise I wouldn’t have offered it as a self-built kit in the shop. End Fed Antenna Kits. From a technical point of view, there is a lot to be noticed on the antenna as can be read above. Common mode current over the coax cable and therefore imbalance in the feed line are simply not desirable. On the other hand, it is an antenna that works great with a lot of people and can be used to make very nice DX. My personal advice is to use this antenna in the field without a common mode choke or other modifications unless there are problems. When working at home with end-fed antennas, I would certainly opt for a good common mode choke and counterpoise capacitance. If you have the space and possibilities for a symmetrical antenna, then this is my preference. *Edited for space considerations –editor*

Do YOU have an Antenna project?

Did your Astron PS switch/light fail?

Many of us use Astron power supplies in our shacks, for powering everything from the main transceiver to providing 12v for the myriad accessories we all tend to accumulate. But one of the failings of the entire line of Astron supplies is the power switch & combined power light inside of it. What often fails is the internal bulb which is not designed to be easily replaced.

Many folks have resorted to drilling a hole and installing a separate neon or 12v lamp but that's not the best solution.

The switch & lamp assembly is made by Carling Switch (now a part of the Littlefuse company of Chicago). Astron power supplies use the LRA-series illuminated rocker switch, with a 125VAC rated Neon bulb with a "Watermelon Red" lens over the bulb. Early models of the supplies had the wire connections soldered, but since the late 1980s, 0.250 "FAST ON" terminals have been used so they can easily be field replaced. Click on THIS LINK to see the ***Carling Tech product*** page, and click on THIS LINK for the ***LRA-series*** datasheet.

Both Mouser and Digi-Key stock them although the price has gone up quite a bit in recent years… they run $4 or so for one-off purchases. Great item to buy a few at a time to keep on hand, if you have more than one Astron. ■ *-editor*

Cool Tool

EVERY ham workbench needs a basic multi-meter and should know how to use it. Analog meters have a great place in the shop, but nothing beats a digital meter for getting precise measurements of parameters that can be measured that way such as resistance, voltage, and current. Harbor Freight for many years has sold an excellent "Cheap 7-function DVM"… sometimes they're red, sometimes they're yellow but always the same decent meter for a dirt cheap price: $6.99 typically, but they often go on sale for half that price and if you're a member of their coupon mailing list, once or twice a year you can pick one up for FREE! While I don't recommend using one of these to measure extreme voltages like inside amplifiers, they're great for all the smaller tasks on the bench… and if you lose it, you're only out the price of a latte at Starbucks ■ *-editor*

Got a shack or shop tip? Send it in!

Looking for a Ground Rod driving drill?

Do YOU have some ground rods in your future? Sure you could use a sledge hammer or a "fence pole driver" manual rig… but if you want to do it in style and EASE, you really need to have a rotary impact drill designed for the purpose.

Back when I was first building out my shack here in the country, I had no desire to flog a sledge hammer for hours on end while atop a ladder. So I started looking into "rotary impact drivers" and I stumbled on the Bosch 1126EVS Professional combination hammer. Yeah, they're pretty spendy new… about $700 not including the SDS-MAX driver bit for a ground rod. But I found one for sale on a pawnshop internet site for a low-low price of $219 and jumped on it.

The SDS-MAX bit for a 5/8" ground rod was an extra purchase but under $40. There's no easy way to drive a ground rod for cheap, and no cheap way to drive a ground rod that's easy. If you have *lots* of ground rods in your future, you might want to look for a similar unit. ■ *-editor*

Upcoming Ham Fests in the area

March 9. Mike & Key Swapmeet. Puyallup, WA. ***This is an ARRL Sanctioned Event.*** https://www.mikeandkey.org/index.php

March 17. CVRS Antique Radio Swapmeet. Burnaby BC. https://hambone.ca/rac/events/detail.php?event_ID=2345

April 13. N7YRC Tailgate Party, Union Gap, WA.**Yakima Valley Emergency Management, 2403 S. 18th St., Union Gap, WA. *This is an ARRL Sanctioned Event.* https://www.arrl.org/hamfests/n7yrc-tailgate-swapmeet**

April 20. Kamiah Hamfest. American Legion Hall 618 Main St. Kamiah, ID. ***This is an ARRL Sanctioned Event.*** **https://www.3riversarc.club**

May 4th Star Ham Radio Swapmeet in Star, Idaho. https://www.starhamradio.com/

May 11. Stanwood Camano ARC 31st Annual Electronic Flea Market and Hamfest. Stanwood, WA. https://scarcwa.org/ham_fest.shtm

May 11. SWIARC Spring 2024 Spring HamFest, Peace Valley Charter School, 1845 S. Federal Way, Boise, ID 83701 ***This is an ARRL Sanctioned Event.*** http://www.dosomethingradio.com

Got a shack or shop tip? Send it in!

HAM TECH 101

Useful tech info for newer hams and old

WHAT IS THE DX CODE OF CONDUCT?

By Larry, W2LJ [Source]

This article will deal with a phenomena that is occurring more and more frequently, I believe. But it hasn't been noticed by me alone, it was also noticed by Jim K9JV, who posted about it on QRP-L this morning. I touched upon this in my recent post about pile up behavior; however, this is a very important topic, so here we go again.

Jim was trying to work both P29NO and 9M4SLL. The pileups were big and unruly. While it is the domain of the DX to try and control the pileups, it remains the responsibility of those trying to work the DX to do so in as "professional" a manner as possible. Jim pointed out that several stations continued to throw out their calls, even though the quarry was clearly calling for a station whose call was in no way similar to those of the perpetrators.

This is maddening! K9JV was furious (and justifiably so) that when P29NO was calling "K9?V", a KØ, a VE and a W2 kept plaguing the ether with their calls. I had a similar experience a few years ago when I was trying to work an Iraqi station. I was one of those competing in the pileup, and the Iraqi station suddenly began sending "W2L?" He meant yours truly of course, yet I was obliterated by a W4 station, and no, it wasn't a W4Lsomething (I could have accepted that) – the station didn't even have an "L" in their call at all! Jim was lucky as he ended up working P29NO. In my case, the Iraqi station subsequently went QRT and I never got him in the log.

What causes this kind of behavior? **Are people truly that stupid and discourteous?** I don't know the answer to that, although I am tempted to offer an unfounded and uncharitable guess.

But I think part of the problem may lay in the way that I think DX is encountered today. At the risk of sounding like a curmudgeon, in the days of old, we used to find DX by twiddling the dial and listening for it. You spun the dial knob, up and down – back and forth, straining your ears to find that foreign amateur radio op. If you were lucky, you were able to hear him, you worked him and you were good to go. Or you listened for a pileup, and you located the station they were all calling, determined if you needed him, and then you joined the fray. But in essence, YOU had to locate the DX station yourself, either by dial twiddling or by locating the goal of a pileup.

Today, things have gotten immensely easier; but at the same time, we have invoked "The Law of Unintended Consequences". Allow me to explain with this scenario:

A station twiddles the dial – he finds and hears (for example, we'll use a DXpedition that just concluded) TX5K. He works him. Then, proud of his accomplishment, he posts TX5K to any of the various Internet "spotting networks" (in the days of old, the Packet Cluster), wishing to share the bounty. Immediately, on the screens of Amateur Ops the world over, it appears that TX5K has appeared on 18.073 MHz (for example).

Nowadays, with the myriad of the logging programs and rig control programs available, an Amateur Op can just point and click with his mouse and "Viola!" there they are, on TX5K's frequency.

I think the problem is, that many (but by nowhere near all) ops don't pause to listen to hear if they can actually hear the DX station. Or may be they can, but they hear him only marginally *at best*.

In fact, they hear him so *marginally* that if they were tuning across the band on their own, they wouldn't have been able to tell that it was the DX in the first place – but hey, their computers tell them that he's there, right? So what do they do?

They start throwing out their calls in the hopes that somehow he'll magically get louder and that they'll be heard in return. Heck, in many cases they can't even tell that he's work-

HAM TECH 101

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ing split! So they call *right on the DX frequency*, which then invokes the ensuing cacophony of "UP"s and "LID"s being sent. The UP police are often the biggest offenders on the band!

It gets to be one, big frustrating mess. And this doesn't even take into account the zoo that can occur if some quack, who literally enjoys jamming DX operations, gets involved, and starts spewing obscenities (even in CW!!) on the DX frequency in his roll as "UP Police"

So what should be done about this? Closely and completely adhere to the "**DX Code of Conduct**" – that's what! The DX Code of Conduct was formulated many years ago by Randy Johnson W6SJ.

1. I will listen, and listen, and then **listen** again **before calling.**
2. I will **only call, if I can copy** the DX station properly.
3. I will **not trust the DX cluster** and will be sure of the DX station's call sign before calling.
4. I will not interfere with the DX station nor anyone calling and will **never tune up on the DX frequency or in the QSX slot.**
5. I will **wait** for the DX station to **end a contact** before I call.
6. I will always send **my full call sign.**
7. I will call and then listen for a reasonable interval. I will **not call continuously.**
8. I will **not transmit** when the DX operator calls **another call sign,** not mine.
9. I will **not transmit** when the DX operator queries **a call sign not like mine.**
10. I will **not transmit** when the DX station requests **geographic areas other than mine.**
11. When the DX operator calls me, I will **not repeat my call sign** unless I think he has copied it incorrectly.
12. I will **be thankful** if and when I do make a contact.
13. I will **respect my fellow hams** and conduct myself so as to earn their respect.

WHAT ARE THE MOST COMMON Q-CODES?

QRL	Is the frequency busy? The frequency is busy. Please do not interfere.
QRM	Abbreviation for interference from other signals.
QRN	Abbreviation for interference from natural or human-made static.
QRO	Shall I increase power? Increase power.
QRP	Shall I decrease power? Decrease power.
QRQ	Shall I send faster? Send faster (__words per minute [wpm]).
QRS	Shall I send more slowly? Send more slowly (__wpm).
QRT	Shall I stop sending or transmitting? Stop sending or transmitting.
QRU	Have you anything more for me? I have nothing more for you.
QRV	Are you ready? I am ready.
QRX	Stand by.
QRZ	Who is calling me?
QSB	Abbreviation for signal fading.
QSL	Did you receive and understand? Received and understood.
QSO	Abbreviation for a contact.
QST	General call preceding a message addressed to all amateurs.
QSX	I am listening on ___ kHz.
QSY	Change to transmission on another frequency (or to ___ kHz).
QTH	What is your location? My location is ____.

GEAR

Guest Columnist: Dave Jensen W7DGJ

AN INTERESTING PART of radio history is the story of the first full amateur station marketed commercially to the public. The inventor and marketer of the "Telimco Complete Outfit" was an early enthusiast by the name of Hugo Gernsback. Gernsback packaged up this transmitter, receiver, and antenna and sold the entire package into the consumer market, advertising it in the pages of Scientific American beginning in the fall of 1905. The Telimco was exclusively for sending and receiving telegraphic dots-and-dashes, as it included a spark gap transmitter and a tapping-coherer receiver. His "outfit" also included four batteries to power the gear. The price? An astounding $8.50, shipped. While (of course) that amount meant a great deal more at a time when you could buy an egg and cheese sandwich for a nickel, it still represented an incredible buy. Just imagine being one of those curious young men who got their hands on one of these back in that era (sorry YL's – the club was almost exclusively boys at that time in history). Fifty years later, crystal sets and shortwave radios were the bridge for my generation into the radio hobby, but Gernsback was clearly the one who brought the idea of an amateur radio hobby to young people a couple of generations earlier. Gernsback was also a dreamer and writer about far-off scientific achievements, other solar systems, and topics like robots. Through that secondary passion of his for his science writing, Gernsback became well-known and is considered to be the father of science fiction. His role at the time was editor and publisher of the fa-

email loggersbark@gmail.com

GEAR

Guest Columnist: Dave Jensen W7DGJ

mous sci-fi magazine, Amazing Stories. As a publisher, he was also first to produce a quality magazine for the radio enthusiast, which predated QST, called Modern Electrics. While Hugo Gernsback's radio exploits were significant, he's best remembered today through the award given annually for the best science fiction writing, the Hugo Award.

Dave Jensen, W7DGJ, *was first licensed in 1966. Originally* ***WN7VDY*** *(and later* ***WA7VDY****), Dave operated on 40 and 80 meter CW with a shack that consisted primarily of Heathkit equipment. Dave loved radio so much he went off to college to study broadcasting and came out with a BS in Communications from Ohio University (Athens, OH). He worked his way through a number of audio electronics companies after graduation, including the professional microphone business for Audio-Technica. He was later licensed as W7DGJ out of Scottsdale, Arizona, where he ran an executive recruitment practice (CareerTrax Inc.) for several decades. Jensen has published articles in magazines dealing with science and engineering. His column "Tooling Up" ran for 20 years in the website of the leading science journal, SCIENCE, and his column called* ***Trials and Errors: Ham Life with an*** *Amateur continues to be a popular read each month on QRZ.com*

Read Dave's column at

https://www.qrz.com/trials-and-errors

Hugo Gernsback demonstrating his television goggles in 1963 for *Life* magazine

Apple Vision Pro "spatial computing device", 2023
a 60-year coincidence?!... *You* decide

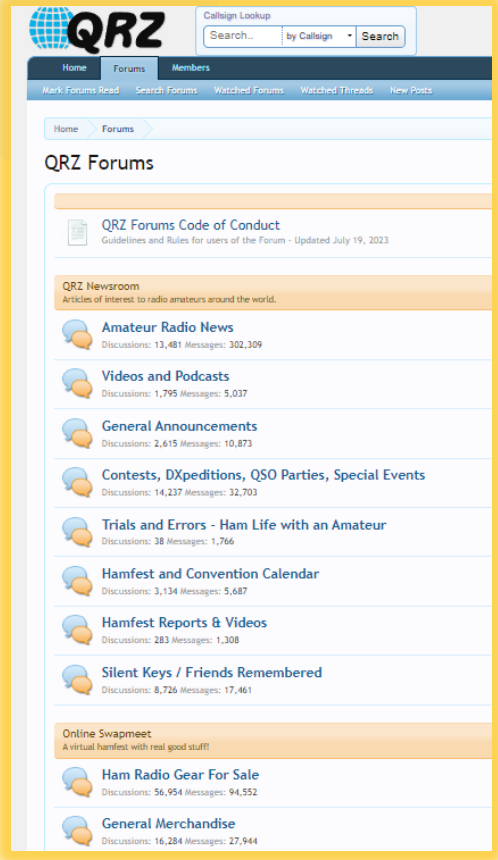
QRZ NEWS YOU CAN USE

QRZ.com Updates from Dave W7UUU

Head Moderator & Director of Forums for QRZ.com W7UUU

FORUMS UPDATES and REFRESH!

MANY USERS OF QRZ.com come to the site just for the social interactions in the Discussion Forums. QRZ has arguably the most active and vibrate forum community of any ham radio site on the internet today. As of this writing, there are 627,387 discussions containing 5,100,220 posts, with a total site membership of 979,645! Right at this moment there are 7,291 users accessing the site in one way or another (114 are "robots" - Google spiders scanning like they do on every site in the world daily).



At QRZ, the philosophy behind the forums is to avoid "over diversification" topics. In other words, don't have 500 forums on every micro topic conceivable! There are ham radio sites on the web that have done just that. But the reality is, you end up with 30 that are used a lot, and the rest just languish unused for months.

So in the QRZ Forums section, we currently have right around 70 sub-forums, virtually all of which are actively in use. As the Director of Forums, and in working with QRZ Founder Fred Lloyd, AA7BQ, I strive to keep a close eye on all of our forums. Are there ones not being used at all? Are there sub-forums that perhaps no longer seem relevant because of the changes in technology? We regularly evaluate all of these issues and try to stay "vibrant and alive" in an effort to ever improve the user experience.

So to that end, I have just recently reviewed all of our sub-forums, and cleaned things up: tightened up forum heading titles, added or removed wording to make the "purpose of the forum more clear to users", and added a couple new forums that are just breakouts from larger forums; most notably, we now have a dedicated Grounding forum instead of having that topic lumped with Antennas and Towers. I also created a subforum for clubs to post their monthly newsletters and provide national (global!) exposure to their club.

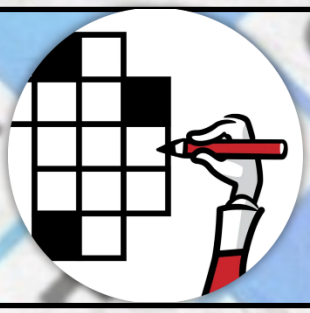
Our goal is always "Customer service is paramount" and we feel that even small things like these forums changes can help bring a higher level of support to our users.

That's it for this month—if you ever have QRZ.com questions, by all means hit the email and send them in and your answers will appear in this column!

73 for now—Dave W7UUU

FUN AND GAMES!

Crosswords, Word Search, etc.



Word Scramble Challenge! Print this page to play!

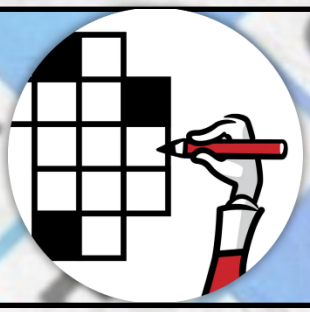
1. TSARRMNEITT _____
2. CEVEIRRE _____
3. EETEOANRGNIR _____
4. NTIAEIOTORN _____
5. RNEOOTMTETPEI _____
6. RSOTRESI _____
7. ARSAFTLREHLIC _____
8. CCOTIRPAA _____
9. SLOPSOCOCIEL _____
10. RENGILOW _____
11. TTERTAOAUN _____
12. HNMLMAUADR _____
13. ONEECSRAN _____
14. CSLOIRLTOA _____
15. ETYHONEEDR _____

WORDS TO FIND:

Regeneration Orientation Transmitter Potentiometer
Resistor Hallicrafters Capacitor Receiver Oscilloscope Longwire
Attenuator Hammarlund Resonance Oscillator Heterodyne

FUN AND GAMES!

Crosswords, Word Search, etc.



Answer Key… but don't cheat!

1. TSARRMNEITT _____Transmitter
2. CEVEIRRE _____Receiver
3. EETEOANRGNIR _____Regeneration
4. NTIAEIOTORN_____Orientation
5. RNEOOTMTETPEI _____Potentiometer
6. RSOTRESI _____Resistor
7. ARSAFTLREHLIC _____Hallicrafters
8. CCOTIRPAA _____Capacitor
9. SLOPSOCOCIEL _____Oscilloscope
10. RENGILOW _____Longwire
11. TTERTAOAUN _____Attenuator
12. HNMLMAUADR _____Hammarlund
13. ONEECSRAN _____Resonance
14. CSLOIRLTOA _____Oscillator
15. ETYHONEEDR _____Heterodyne

WORDS TO FIND:

Regeneration Orientation Transmitter Potentiometer Resistor Hallicrafters Capacitor Receiver Oscilloscope Longwire Attenuator Hammarlund Resonance Oscillator Heterodyne

Late Breaking IMPORTANT Club News

NEWSSTAND

W7UUU editor

FEBRUARY 29, 2024—Last Minute "addition to the edition"

ACCEPTED

Good Day All,

My name is John Sherrill, **N7TES**, and I have been asked to organize a Parks on the Air (POTA) event for March.

I'm looking at Sunday, March 24th to hold a POTA event at the Saltwater State Park, K03262 starting at 0900 PST. We will be using the Club callsign, W7DK, for our logs.

Be sure to bring your Washington State Discover Park Pass with you.

Bring your rig and antenna and join in the fun. Even if you don't have a rig, I'm sure there will be station for you to operate.

I will bring some Bandpass filters to help eliminate some local interference from nearby POTA Activators. See you there!

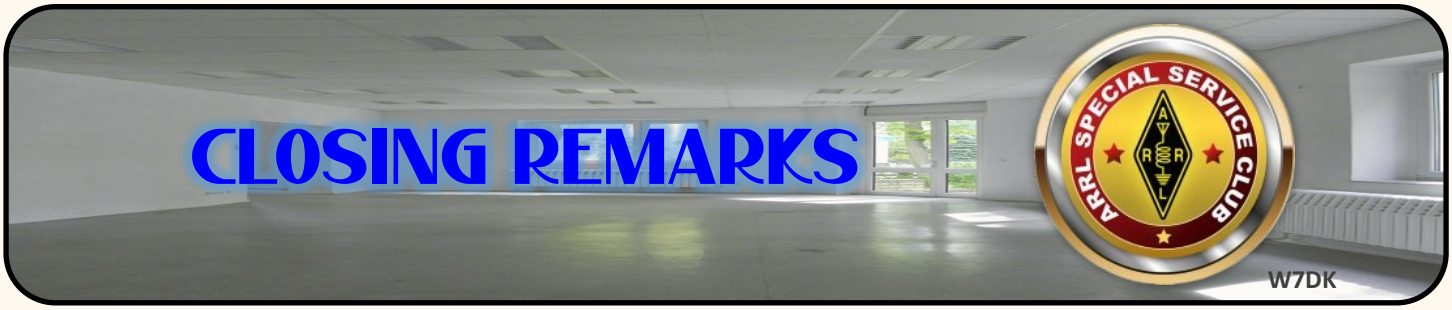
https://pota.app/#/park/K-3262

https://parks.wa.gov/find-parks/state-parks/saltwater-state-park

John A Sherrill
N7TES

APPROVED

email loggersbark@gmail.com



About this Publication

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Emailing Officers

To contact any club officer, simply send an email to their call sign @W7DK.org

Contributions of Articles & photos

We WELCOME contributions of articles, guest editorials, blurbs, Hints-and-Kinks, shack photos, QSL cards, memorable contacts, anything of interest to your fellow members. Submit your materials via email to: loggersbark@gmail.com or via US mail to PO Box 11188, Tacoma, WA 98411

Radio Club of Tacoma Repeaters

Central Tacoma 2m:	**147.28 + PL Tone 103.5**
Central Tacoma 70cm:	**440.625 + PL Tone 103.5**
Crawford Mountain:	**147.380 + PL Tone 103.5**
North Tacoma:	**145.21 - PL Tone 141.3**

Membership Information

- FULL (licensed) and ASSOCIATE (non licensed) membership is $35 per calendar year or $30 for Licensed Seniors (65 and over)
- Licensed family members at same address pay $20 each for the first two and are free for the third, fourth, and so on.
- Full-time students, licensed or non licensed, up to age 25 are $20 per year.
- Fees are applicable for the calendar year: January to December
- Lifetime membership is 20 times the yearly fee you are eligible for. Lifetime memberships are calculated based on the FULL and ASSOCIATE rates.
- Visit www.w7dk.org For the latest and most current information on events and activities

Have a submission for our next issue?

loggersbark@W7DK.org